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ART. I.—*Observations on the epidemic Yellow Fever of Natchez, and of the South-west.* By JOHN W. MONETTE, M. D., of, Washington, Mississippi.

(*Concluded.*)

Admitting the correctness of the positions which we have assumed, the question which naturally presents itself is this:

How shall New Orleans and the towns on the lower Mississippi be protected from EPIDEMIC *yellow fever?*

We answer, they may be protected from devastating *epidemics* by judicious quarantine regulations, properly enforced, near the mouth of the Mississippi, or at any proper distance below the city. These regulations should have for their object the prevention of any direct intercourse with Vera Cruz, and Havana, or any other West India port, during the time that such port is the seat of epidemic yellow fever. This would necessarily exclude shipping from Vera Cruz generally from and after the first of June; and from Havana, from

and after the first of July, varying according to the periods at which those ports become imminently infected. This prohibition should be enforced for two months or more, until the epidemic subsides in such ports.

The quarantine regulations should also embrace some provision for reducing the number of transient, unacclimated strangers or northerners, from and after the middle of July, and also for prohibiting the introduction of foreign emigrants into the city between the months of June and October; and, when yellow fever is virulent in the West Indies, the prohibition should be enforced until the last day of October. The danger of any epidemic is always augmented by the influx of northern foreigners during its prevalence. This is well known in New Orleans; and the city press does not fail to warn them of their danger, and vainly to deprecate their arrival.* The civil authorities should coerce their exclusion, if necessary, during an epidemic, or during the apprehension of one. An epidemic cannot become virulent, and extend its influence rapidly among the resident population, without the aid of a large number of northern strangers and foreigners, who are unacclimated; and during an epidemic they are the fuel which keeps up the fire.

If the disease in its epidemic form can be excluded from New Orleans, every interior town in the south-west, having a direct commercial trade with, and dependence upon that city through the lower Mississippi, will most assuredly remain free from this pestilence; and their citizens may rest secure from the apprehension of danger from that quarter. All quarantine restrictions on the river above New Orleans will be unne-

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* The following extract from the Louisiana Advertiser, of October, 1839, will show the general feeling on this subject, viz.:

"*Food for yellow fever.*—The barque Eleanor, which arrived yesterday morning from Havre, brought to the city sixty steerage passengers, chiefly Germans: they are full-blooded, fresh, and healthy—*inviting subjects for yellow fever*. We looked on them as among the *doomed;* and sorrowed to think that such robust and strong-constituted individuals, should be grappled by so fierce an enemy."

cessary; and the interior commerce of the city, with the valley of the Mississippi, will be constant and uninterrupted.

This brings us to speak more particularly on the subject of quarantine regulations, adapted for the protection of New Orleans and other towns on the lower Mississippi.

QUARANTINE.

There are in all countries, and especially in commercial cities, men whose pecuniary interests conflict with wholesome regulations for the welfare of the community at large; men whose feelings and views of things mislead their judgments relative to the general good of society. In nothing is this principle more clearly elucidated, than in the opposition usually made to all temporary restriction upon commerce, by sanatory quarantine regulations.

Notwithstanding the apparent efforts, sustained by the commercial interests, and the weight of medical authority in the United States, to abolish all quarantine regulations designed for the protection of our commercial ports, the facts are continually staring us in the face, that *there are certain diseases*, peculiar to tropical ports, or to certain cities and regions of the civilised world, which are more or less communicable from one person to another; and which, when epidemic in any city, may, by a favorable combination of circumstances, which are not well understood, be communicated and disseminated in other towns and ports, which were previously free from any such disease. The two most prominent diseases of this character, are the *plague* of the eastern continent, and the *yellow fever* of the western, not inaptly termed the western plague. These diseases, when communicated from one port to another, are supposed to be imported solely through the agency of ships and commercial intercourse. When one port or city is more favored by nature than another, either in its location, latitude, or any other circumstance, which renders it exempt from diseases which are endemic in others, it becomes the natural right of the inhabitants, and the special duty of the municipal

authorities of such favored port or city, to protect themselves against all the possibilities of introducing a pestilential disease.

As such diseases are caused by some invisible, uniform, and mysterious influence, which manifests itself only in those persons who are exposed to its action; and as the same disease, when produced in a healthy place, is the result of a similar exposure to the influence of a portion of the same atmospheric agent, which may have been, and doubtless has often been carried from infected ports, in ships and other articles freighted in them, it is the dictate of reason and prudence, to *interdict* temporarily, that kind of intercourse with such infected port, which affords the greatest probability of introducing the aerial poison. This temporary interdiction of commercial intercourse with cities which are the seats of epidemic pestilential diseases, has been denominated a quarantine restriction.

The older quarantine regulations, from some superstitious veneration for the number forty, required vessels from such infected ports to remain out of port for forty days: hence the name. Such restrictions, under one form or another, have been enforced from the earliest history of the commercial world; and the world, by common consent, has approved the same. But with the nineteenth century chiefly, and chiefly in the United States, the doctrine has sprung up, and has been propagated, which teaches that the light of science and the march of intellect, at this late day, deem it expedient to expose populous cities to the ravages of pestilence, rather than impose any wholesome restrictions upon the interests of the few, to avert such calamities.

Such regulations have always been opposed by the commercial interests in any port, because it does not ostensibly administer to the pecuniary advantage of that class of individuals. At length many of the learned of the medical profession have been brought over to sustain this opposition, which, at this time, has become somewhat *popular* in the United States. This circumstance alone is calculated to draw a formidable array of learning and talent against any cause, however sound its positions.

Besides the professions of philanthrophy, benevolence, charity and humanity, as the motives which prompt the opposition to judicious quarantine restrictions, many have taken the ground that the disease—the pestilence to be excluded by such means, is *endemic in our ports;* the product of local causes which abound in all our towns, independent of, and unconnected with foreign intercourse: and that consequently it is not to be excluded by such restrictions against foreign importations. Through the name and influence of Dr. Rush and his coadjutors, backed by the allies of the commercial and importing classes, this salutary protection to the population of some of our most important seaports, had well nigh been abolished. Yet they have passed from the stage of action, and their influence, losing its power over the judgments of men, ceases to mislead on this important subject.

New York, Philadelphia and Baltimore, as if for the purpose of testing the doctrine of foreign importation of yellow fever, at the expense of thousands of their citizens, refused to adopt any decided restrictions on the West India commerce until about the year 1822, when the experiment had been fully made. Since that time, the counterpart, and by far the most salutary part of the experiment, has been in operation.

Since the year 1822, the quarantine restrictions enforced at New York and Philadelphia have protected those ports, and for twenty years they have escaped all pestilent epidemics. Yet before these restrictions were enforced, they had been liable to these visitations, no less than six times in 20 years, from 1790 to 1810.

The southern ports of Charleston, Savannah, Mobile, and New Orleans, where quarantine regulations are discarded, are almost annually ravaged by this West India plague. Will not the same regulations, strictly enforced in these southern ports, be followed by the same salutary results?

It will be remembered that we have already set forth the manner in which vessels and steamboats become infected, and instrumental in the introduction of yellow fever into a healthy port, to which we refer the reader.

How should a quarantine be enforced below New Orleans? We answer, 1st. establish a quarantine ground near Fort Jackson or Fort St. Philip, which shall effectually command the river. From the time that yellow fever has assumed its epidemic form in Vera Cruz, Havana, or any other place, cause any and every vessel from such port, to remain below at the quarantine ground: there let her cargo be discharged, and properly ventilated for 72 hours, at least, day and night, before it is allowed to be taken up to the city: the importing vessel should not enter the port of the city until after frost. At the same time, vessels from healthy ports, which have not touched at any infected port, might be permitted to ascend and discharge their freight at the wharves of the city—provided their crews are perfectly free from disease.

2. Erect a large, airy, brick hospital, at the quarantine ground, for the reception of seamen and others, laboring under yellow-fever, from vessels detained. The buildings should be comprised in an extended row of one-story houses, with rooms about 20 feet square; each room to accommodate four patients.

3. Prohibit, during the quarantine, the entrance of foreign emigrants, or strangers who have touched at any infected port within ten days previously.

4. The Charity hospital, for the reception of the indigent sick of the city, should be located in the suburbs, at least half a mile from the populous part of the city.

It can be well established that whenever yellow fever has prevailed in any port of the United States or in any port of Europe, it was always at a time when a direct intercourse had been kept up between such port and the West Indies where yellow fever is endemic. Whenever it has been epidemic in Lisbon, Cadiz, or Gibralter, it was immediately preceded by an unusual intercourse from the West Indies to those ports. This was true, especially, from 1804 to 1814, when large armaments and fleets were constantly arriving from Havana, Vera Cruz, and other tropical ports, during the European wars with Bonaparte.

The same is true of ports in the United States. We have

already shown that yellow fever is not epidemic in them except when the intercourse with the West Indies is direct and uninterrupted. This point can be established by a reference to every instance in which it has prevailed as an epidemic in our cities. Dr. Hosack observes, that "during the years in which our commerce with the West India ports was interdicted by the embargo (before the year 1812), and during the subsequent years of war with Great Britain, when our communication with her possessions in the West Indies, and other West India ports, was entirely suspended, *the cities and towns along our whole coast were exempt from the fever of the tropics.* A recurrence to meteorological observations, for that period, will show that the mercury frequently ranged higher, than in those years when the yellow fever prevailed in our cities; and when the general constitution of the atmosphere, which was favorable to the generation of this malignant form of fever, provided domestic causes could engender it, pervaded our country as much as at other times, when yellow fever had prevailed extensively. The local causes in our sea-ports, such as exhalations from our ships, market places, privies, and new-made grounds, remained the same, and in some cases worse than when the yellow fever had prevailed in other years. Yet, unfortunately for the doctrine of domestic origin of yellow fever, the health of our cities remained undisturbed by the deadly visitor."* The same was true of all our ports during the war of the revolution, from 1776 to 1785. But so soon as peace was confirmed, and a brisk trade was carried on with the West Indies, the yellow fever began to prevail in all our most important ports, from 1790; and it prevailed extensively in some of the principal ports, nearly every other year, until the embargo in 1808 and the war of 1812 so interrupted the commercial intercourse with the West Indies, that epidemic yellow fever was not known in the United States until the year 1817, when a constant commercial intercourse with the West Indies had become again established.

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* See Hosack's Medical Police.

Since that time the intercourse with tropical America has been uninterrupted, and yellow fever as an epidemic has not failed to visit our most important ports, almost every other summer, up to this time.

The great practical error and impolicy of the *domestic origin* of the yellow fever, is this: viz. it leads people to disregard the proper precautions against its dissemination through a dense population; it indirectly encourages its diffusion among a healthy population, by encouraging those habits of careless intercourse by which the limits of the infection is certainly extended; while every measure which tends to circumscribe its limits are neglected or disregarded. Under the belief that it cannot be imported, or even communicated, directly or indirectly (because it is local and indigenous in its origin), many persons are induced to expose themselves to infected ships, houses, and the infected districts of a city, and thereby become instrumental in carrying the disease in their own persons into healthy parts of the cities and towns. This is often the case with persons who have no definite ideas of any of the laws of infection and contagion, and are often blindly impressed with the belief that the disease is "not catching." It leads also to a culpable carelessness with the sick, by indirectly encouraging the accumulation of the morbid effluvia in their rooms, and the accumulation of morbid secretions about their beds and chambers; for, as is very naturally inferred, if no effluvia or morbific exhalation is given off by the patient, why the necessity of cleanliness and ventilation? It encourages a disregard of all sanatory cordons which may be established to cut off the intercourse of the healthy population from the infected vessels, houses, or districts. It is to be regretted that medical men, the proper conservators of health, should be foremost in inculcating doctrines which tend indirectly to lead on these malignant epidemics into our cities.

Medical men are often led by theory, or the force of education, to disregard important facts in these epidemics; or to bend them to suit a preconceived theory: but the intelligent mass of the people have neither theory nor the bias of educa-

tion to mislead them, and they generally judge correctly upon the facts which present themselves. It is a well known fact that the mass of the intelligent population in our southern ports, where yellow fever is often epidemic, are involuntarily led to the conviction, that it is an imported, and, under some circumstances, a communicable disease. They know that ships and steamboats do sometimes become strongly infected while the resident population is healthy. This conviction is produced in their minds, without any desire to sustain any theory, or from any pride of opinion. As the Abbe Du Pratt has remarked, "there is often *a blind impulse in public opinion which arrives by a more speedy and certain method at the truth*, than all the reasonings of philosophy."*

Those who oppose all quarantine restrictions, urge the plea that the commercial interests are deeply embarrassed, and the general prosperity of the cities interrupted. These we conceive to be false positions. We contend, on the contrary, that the health, prosperity and pecuniary interests of all classes are promoted by proper quarantine regulations. For example, let us take New Orleans and Natchez, which might be protected from yellow fever epidemics by judicious quarantine restrictions.

When Natchez is the seat of epidemic yellow fever, the whole commercial business of the place may be said to be prostrated for that time; all mechanical business and trade is stagnant for two or three months, and the ordinary income of at least five hundred families† is suspended, and their daily expenses increased fourfold, by flight, sickness, abandonment of property and new expenses incurred by procuring a temporary residence out of the city. In this we have not included the permanent loss which the community sustains in the death of two or three hundred of the most enterprising and useful citizens, at each visitation, exclusive of an incalculable amount of suffering, privation and bereavement which are but

* See Townsend on Yellow Fever of New York, p. 62.
† The entire population of Natchez during the summer is 3500.

partially indicated by the emblems and weeds of mourning which shroud the community for months afterwards. All this is avoided and escaped during the summers when yellow fever does not visit the city; and with incalculable advantage to the dependent classes.

Whatever may be the foreign trade of New Orleans, it is almost entirely suspended during the prevalence of an epidemic in the city; and, what is of far more importance to the prosperity of the city, the whole inland commerce of the valley of the Mississippi, with a population of more than four millions, is likewise suspended. Besides this, nearly five thousand of the resident population annually leave the city in anticipated fear of an epidemic, and an equal number leave on the certain appearance of the unwelcome visitor. In addition to this, the city suffers a permanent loss by the death of not less than two thousand or twenty-five hundred souls, during each epidemic; and among this number may be reckoned about five hundred enterprising and useful citizens forever lost. We might add, without taking into the estimate the amount of mental and physical suffering, that the charge, responsibility, and expense of providing for, nursing, and interring more than one thousand destitute strangers, is thrown upon the city at each epidemic visitation.

All this may be avoided by excluding yellow fever from the city; and the enforcement of a judicious quarantine near the Balize, and on any other commercial avenue for three months at most, during the prevalence of yellow fever in the West Indies, affords the only prospect of accomplishing this desirable result. New Orleans may be, and at length will be released from this annual pest, if her citizens will it to be done.

The plea of humanity, of philanthrophy, in this case so often preferred, as an argument against quarantine restrictions, with apparent sincerity, is perfectly gratuitous. If we admit the position that yellow fever is local in its origin, and has no tendency to spread among a dense population, and that the multiplication of cases does not tend still further to contaminate the air; and that quarantine restrictions encourage

the abandonment and entire neglect of the sick, it then would appear a very plausible argument, *ad captandum.* But denying all these assumptions, we contend that we are entitled to the whole benefit of the argument on the score of humanity and philanthrophy. We urge that it is not local and that it can be excluded from our ports; and by so doing we should be the means of preserving the lives of thousands of persons annually in the United States; and we should in like manner protect our citizens from all the privations and sufferings incident to these epidemics, and the concomitant stagnation of every species of trade and business upon which the poor depend for daily subsistenee. We *prevent* the misery and wretchedness which others would in vain attempt to *mitigate,* after they have aided in bringing it about.

We have devoted none of our remarks to the treatment of this disease. All the experience of the medical profession in the United States, for fifty years, and all the researches of science, and all the *post mortem* examinations of organs and tissues, have tended to throw no light on the treatment. Under all modes of treatment, consistent with the various theories framed for its cure, the disease in its most malignant type sweeps off into the grave at least one half of its victims, and with as much celerity and certainty now as it did when first introduced into our ports fifty years ago. The milder cases which occur in all these epidemics, will recover under any judicious mode of treatment much more readily than severe cases of common remittent fever. Many of the mildest cases will recover almost without any medical treatment. But the severe cases generally terminate in death, unchanged by any mode of therapeutic treatment. Hence we doubt not that it is much more important to the interests of our cities and ports, to direct attention to *preventing* these epidemics, than to discover the best modes of cure after they have been invited among us.

CONCLUSIONS.

If the views advanced in the preceding pages be correct, we are sustained in the following as legitimate deductions:

I. That the miasm or gaseous matter which is essential to the production of epidemic yellow fever, is generated only while the extreme temperature in the shade is at least up to 88° of Fahrenheit; and that so long as there is sufficient agitation and change of the air by winds, it will not accumulate in sufficient quantity to produce yellow fever as an epidemic: that when sufficient miasm is produced and accumulated, the malarious combination, which likewise requires several days of calm, sultry weather, will proceed at a still lower temperature.

II. That the miasm of yellow fever, is, *per se*, in a pure atmosphere, probably innoxious; but acquires active morbific properties by combining with sultry, hot air, which has been exhausted by respiration, and charged with human exhalations: and that it then becomes *malaria*, or infectious air, which is an active predisposing cause, as well as a proper "*nidus*" for the reception and evolution of the infection of yellow fever.

III. That this malarious condition of the local atmosphere of any city, or portion of a city, may be so concentrated as to produce a strong predisposition to yellow fever in many of the inhabitants, without actual disease, until after a few cases have been excited into action by highly exciting causes, when *infection* is generated, and speedily the malarious district becomes the infected district: which result would have been prevented by a storm or change of weather previous to those cases.

IV. That when the malarious combination is sufficiently concentrated for this purpose, a large quantity of *infected air*, brought from an infected district, or a large number of cases of yellow fever introduced from another point, will convert that malaria into infected air, and produce an epidemic likewise.

V. That consequently, although yellow fever may to a certain extent be called a disease of local origin, and depend upon a local atmospheric constitution, or contamination, for its extension, yet it may, under some circumstances, be carried from one city to another, and there propagated.

VI. That accordingly epidemic yellow fever may be averted sometimes by one or all of the following measures, enforced at a time, when, according to the principles herein set forth, the malaria is forming rapidly; viz:

1. By a dispersion of the greater portion of the citizens to the country.

2. By removing from the city, and especially from the districts usually infected, all *strangers*, or those who have not become acclimated by a residence of two or three years, and who would of course be the first attacked.

3. By prohibiting the introduction from foreign places of infected air, or *fomites*, or patients laboring under yellow fever during the prevalence of malarious accumulations.

VII. That malaria accumulates most in those parts of cities and towns, where the population is most crowded, and where, from the situation of the ground, or the nature of the buildings and enclosures, the local atmosphere becomes most stagnant; and such accumulations of malaria in the United States take place chiefly in the months of July, August, and September.

VIII. That when yellow fever rages like a pestilence in any city or town, the suburbs, the immediate vicinity, and the whole surrounding country, are entirely free from such infected air, and from all similar disease. Of course the epidemic yellow fever cannot be the result, solely, of "a general atmospheric constitution"—but is the result of some peculiar local contamination of the city atmosphere.

IX. That this local contamination, or infection, *is not* the product of the city filth usually found in streets, alleys, and sewers, and about the wharves; nor is it the product of the decomposition of animal or vegetable matters, under any circumstances.

X. That when this contamination or infection is once formed in the local atmosphere, none of the disinfecting agents heretofore used, have any virtue in neutralising the infection, or in arresting the progress of an epidemic. Cold, or a reduced temperature, is the only known destroyer of the infection of yellow fever.

XI. When an epidemic has once begun, the only safety to the unacclimated is speedy flight to the country, where the air is pure. When the population of an infected town has fled in great numbers to any healthy town, carrying with them large quantities of clothes, beds, bedding, blankets and porous articles of merchandise, there is great danger to be apprehended, lest the fomites should there generate a new local infection equally virulent with that from which they had escaped. These articles, when infected, are liable to become the most virulent sources of infection, and are purified only by frost or cold weather.

XII. That all steamboats, flat-boats and vessels which remain at the wharves for many days, in an infected district, discharging and receiving freight from the infected district, do often become as thoroughly infected as the houses in that part of the town, and finally become as capable of imparting the disease to unacclimated strangers, as the air in the city houses would, under similar circumstances.

XIII. Consequently such vessels from an infected port, should be prohibited from lying at the wharves of a healthy town, and from discharging their freight or sending into such town yellow fever patients, or in any wise holding intercourse with the population of that town during the months of July, August or September.

XIV. That the cause of humanity, both in relation to the sick and the well, and especially to the latter, requires that all hospitals provided for the reception of boatmen, sailors, and all indigent poor, during an epidemic yellow fever, should be located beyond the limits of any city or town, and that the free and promiscuous intercourse of the citizens with such hospital should be interdicted.

XV. That all empty and unoccupied flat-boats at the wharves should be removed early in summer, as they contain a large amount of stagnant atmosphere constantly acted on by the intense rays of the sun, and they may thus become reservoirs of what we have termed *miasm* and *malaria.*

The following *facts* relative to yellow fever in its *epidemic form*, appear to be well established by experience and observation, especially as regards the United States.

1. Foreigners and northern strangers are often attacked with yellow fever in the southern ports of the United States, as well as in the West Indies, when the whole resident or acclimated population is healthy; and the former are the principal victims during any yellow-fever epidemic.*

2. It is extremely rare that any person is attacked a second time by yellow fever. The first attack produces such a change in the constitution that those who recover are generally forever afterwards exempt from its attack, while they reside in a southern latitude.†

3. In the most virulent epidemics, at least *one half* of those attacked by yellow fever die; when less than that proportion is reported, we may believe many cases have been enumerated as yellow fever which *are not yellow fever;* or that the disease assumes an uncommonly mild form.

4. When an infected district is once formed, the infection spreads slowly and gradually from one or more points, or radiating centres, until it pervades the principal parts of such city or port. In its progress it advances steadily, regardless of promenades, burying-grounds, compact or open squares; over sewers, cist-pools, clean or filthy streets, and in wet or dry weather; it pursues its retreating victims to their farthest retreat, provided they have contracted the seeds of the disease, or breathed the concentrated infection.

5. During an epidemic the virulence of the infection is *more active by day* than at night, and exposure in the infected dis-

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* See Townsend on the Yellow Fever of New York, pp. 249–252.
† Vide Ibidem, pp. 247–9.

trict is more dangerous at noonday than at night. Night-watches are more exempt, *ceteris paribus*, than the day-watch, from the attacks of the disease.*

6. Common city filth *has no agency whatever* in generating yellow fever epidemics; on the contrary, it is calculated to absorb or neutralise the infection.† Scavengers and grave-diggers have always been more exempt from attacks of this disease than others.

7. Lime as a *prophylactic*, or a *disinfecting agent*, is *useless if not prejudicial.* Those engaged in spreading lime in cities have been more frequently attacked by the disease than the scavengers. In New York in 1822, the yellow fever spread much more rapidly in Lombardy and Cheapside streets, *after* lime had been spread in them, than previously.

8. Next to blankets, feather-beds, and other similar porous articles, *wood*, such as plank, boxes, ships, wooden houses, &c., retain the greatest amount of *latent infection.* Hence yellow fever prevails most malignantly among crowded wooden buildings,‡ board-fences, temporary sheds, wharf-boats, &c., all of which retain the infection until it is neutralised by cold or frost.

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* See Townsend on Yellow Fever of New York, pp. 252, 253.

† Idem, p. 116.—See Dr. Rush's Inquiries.

‡ The following fact stated by Dr. Bayley, in relation to the tenacity with which fætor from putrescent animal matters adheres to the wood and timbers of ships, will in some degree aid in illustrating the tenacity with which yellow-fever infection adheres to wooden houses, boxes, &c., viz:

"I have often noticed that those vessels loaded with hides and jerked beef which was partly damaged, and where the timbers and ceiling of the vessels became tainted, especially in the hold, the offensive smell has often been removed for the time, by being well ventilated and scrubbed with water:—but afterwards, upon the application of whitewash to the planks, *the offensive smell has been reproduced to a much greater degree than it was at first.* A second white-washing with lime, after the foul smell had again disappeared, again *renewed the putrid effluvia.* This would be produced in a decreasing degree for several times until the vessel was entirely purified." See Townsend on Yellow Fever of New York, pp. 94, 285–321.

This effect was produced by the chemical action of the lime, disengaging the putrid matter absorbed by the wood in a latent state. In the case of the brig Enterprise before cited, infection seems to have been absorbed by her timbers in the same way. The same action may be exerted upon the infection of yellow fever.

9. That yellow fever is a peculiar disease; a fever of only one paroxysm, varying from one to three days before the remission and collapse; and that it is radically different in its character from the whole family of remittent and intermittent fevers.

YELLOW FEVER HAS BEEN EPIDEMIC IN THE FOLLOWING TOWNS AND PORTS OF THE UNITED STATES

1. CHARLESTON, S. C. This is one of the oldest commercial ports in the United States, and has at all times had an extensive commercial intercourse with the West Indies; and it has likewise been subject to epidemic yellow fever repeatedly during its commercial prosperity.

The *first epidemic* was in the year 1700, again in the years 1703, 1728, 1745, 1748, 1753, 1755. The next was in 1793. From the year 1793 to that of 1807 inclusive, this disease prevailed in Charleston almost every alternate year, either severely or partially.* From that time until the restoration of commerce, after the peace of 1815, this city, as well as all other ports of the United States, was exempt from this disease. In 1817 the city was severely visited again; and from that time up to the year 1839, a period of 22 years of active and uninterrupted commerce, it has been epidemic in Charleston nine times, or nearly every alternate year. In this city the disease, always appearing among the vessels in port, and in unacclimated persons, is known chiefly by the name of the *stranger's fever.*

2. PHILADELPHIA. This is one of the oldest commercial ports in the Union, but being in a more northern latitude was less liable to epidemic yellow fever than Charleston; yet it was occasionally visited by this disease up to the year 1762. From that time, during all the difficulties and interruptions of foreign commerce, until the close of the war of independence,

* See Med. Repos., old series, vol. ii, pp. 234, 235, and vol. iv, p. 100. See Dr. Simonds on Yellow Fever of Charleston.

the city was free from this disease. After the peace of 1783 the foreign commerce gradually revived, and having increased rapidly, Philadelphia became an important port, as the seat of the Federal Government. The consequence was, that yellow fever was introduced every alternate year, until the year 1808, when commerce was again interrupted by new difficulties with England and other European belligerants. This interruption, with the war which followed, gave Philadelphia another exemption for ten years. Since the year 1822, the city, having adopted the policy of New York in prohibiting infected vessels from the port, has enjoyed an exemption from these epidemics, and her commercial interests have been benefited rather than injured.

We may remark, that during the revolutionary war, the autumn of 1778 was *unusually sickly* along the whole Atlantic seaboard, the summer "*being unusually hot and sultry*": but there was no yellow fever, for the want of foreign infection, the general character of the diseases being of the "intermittent" type.* Yet so soon as commerce with the West Indies was fully revived, the diseases in the seaports dropped the "intermittent" character, and assumed that of epidemic yellow fever. During this time the British army and navy in the West Indies were annually ravaged by this pestilence which prevailed in nearly all the West India ports;† while the inhabitants of the interior were exempt.

3. New York, lat. 40° 43′ north. This city has been gradually increasing in point of population and commerce for the last fifty years, during which it has more than doubled its commerce and population. In a latitude almost too far north for epidemic yellow fever, the city has never been so extensively ravaged by this disease as the more southern ports. Yet it has suffered to a considerable extent, several times previous to the year 1808. After the great expansion of commerce after the late war, yellow fever was occasionally intro-

* See Med. Repos., old series, vol. ii, p. 364.
† Coxe's Med. Museum, 1805, vol. i, p. 184.

duced by vessels from the West Indies. But it did not spread epidemically except in 1819 and 1822, the latter being much the most fatal of any previous year.*

Since the year 1822, a period of nearly twenty years, a judicious quarantine has protected the city from epidemic yellow fever, although the commerce of the city during that time has been more extensive than it ever was previously; while Charleston, Savannah, Mobile, and New Orleans, without any quarantine restrictions, have suffered severely.

4. SAVANNAH. This also is one of the oldest ports of entry. From a very early period it has been occasionally visited by epidemic yellow fever, when it had been prevailing extensively in the West Indies. From the year 1808 to 1817, during the interruption of commerce, it was exempt. Since that time it rarely escapes when Charleston, Mobile and New Orleans are visited. No quarantine regulations have been adopted in this city.

5. ST. AUGUSTINE & PENSACOLA, under the Spanish occupancy, were proverbial for their salubrity, and yellow fever was unknown in them as an epidemic until the Floridas fell under the jurisdiction of the United States on the 17th of June, 1821.† As the treaty of cession had been made several months previously, the emigrants from the United States were pouring into St. Augustine early in the summer of 1821, while the Spaniards were departing as fast as possible for Cuba. Thus a constant intercourse was kept up between Cuba and St. Augustine, by numerous vessels which were transporting the Spaniards and their effects to Havana. These vessels on their return were chiefly freighted with tropical fruits, which were the means, no doubt, of producing an epidemic bilious fever, while some persons contracted yellow fever in the vessels direct from Havana. The following year, 1822, the American emigrants began to crowd into Pensacola; while transports were constantly passing and repassing to Havana, in removing the

*See Townsend on Yellow Fever of New York, passim A. D. 1822—also N. Y. Med. Repos., vol. ii, pp. 315 and 316.

† William's Florida, p. 207, &c.

persons and effects of the loyal Spaniards. The result was the introduction of a malignant epidemic, which spread rapidly among the unacclimated and promiscuous population who remained in the place. Again, in the autumn of 1825, the population was composed chiefly of recent northern emigrants, who were pouring in daily; and a brisk trade having sprung up with the port of Havana, the yellow fever was again introduced with great mortality. Since that period Mobile and other ports in the Territory of Florida, having withdrawn the trade from Pensacola, have likewise taken away the liability to frequent yellow fever epidemics; and for many years past, Pensacola has rarely suffered from yellow fever, although cases have been occasionally introduced in the national vessels of the United States and other powers.

6. New Orleans. Site on adhesive alluvial earth, or mud, 10½ feet above tide level, in lat. 29° 57′ north. This city has carried on a constant commercial intercourse with Havana and other West India ports, for more than seventy-five years, including the Spanish régime previous to 1803. During this long period, we are not able to ascertain that it has been visited by any malignant epidemic, until it came under the jurisdiction of the United States. Since that time, and especially since the revival of commerce, after the peace of 1815, its population and commerce have increased more rapidly than those of any city in the United States; and the frequency and mortality of yellow fever epidemics have been *pari passu*. In the period of twenty years from 1817 to 1837, the yellow fever has prevailed as an epidemic about nine times; and to such a degree of virulence that in 1819, when the resident summer population was only *thirty-three thousand souls*, the deaths in August were 560 souls, and in September 594. The yellow fever generally, if not invariably, begins its ravages among the shipping and in the population near the wharves.

We infer that any interruption to the commerce of New-Orleans and other Atlantic ports, such as that preceding and during the last war with Great Britain, would again suspend the prevalence of yellow fever in our ports.

For many years after the close of the war of independence, yellow fever was introduced occasionally into some other ports of less note than those we have already named. Thus it was introduced into Baltimore, into Wilmington, Delaware; Port Elizabeth, New Jersey; Norfolk, Virginia; Wilmington, Newbern, and Washington, North Carolina; New London, Connecticut, and Portsmouth, New Hampshire. Yet in most of these places, which were then important ports of entry, the disease manifested itself by only a few cases; and in those only, in most instances, who had had direct communication with infected ships, then lying in port,* which were charged with "foul air," as it was termed.

7. Gibralter and Cadiz, ports of Spain, have been visited by yellow fever. It prevailed in Gibralter in the summer of the years 1804, 1810, and 1813, and at Cadiz in the autumn of the year 1814. In each of these places it was introduced by vessels from the Spanish Main and the West Indies; and especially by the arrival of large fleets and armaments during the prevalence of the European wars against the power of Napoleon. It has also occasionally appeared in other ports of southern Europe at divers times between the years 1800 and 1815; but there are the strongest reasons to convince us that the disease was introduced by vessels and transports from the West Indies, during the wars which devastated Europe and the West Indies within that period. The troops and marines were those who suffered first and most severely.

Art. II.—*Facts and Conjectures on the Trembles and Milk-sickness.* In a letter from Dr. G. B. Taylor of Morganfield, Kentucky, to Dr. W. L. Sutton, of Georgetown in this State; communicated by the latter with some remarks.

* * * The subject of your letter is one on which I have made many inquiries, and in every neighborhood within

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*Med. Repos., vol. ii, p. 117.

my reach; especially since the death of Wm. Hopgood, with whom you were well acquainted: he died at Highland about three years since. As he was a young man of close observation, and possessed more than common discrimination, I was disposed to place some confidence in his opinion of the producing cause of his disease; and I never saw a man more confident of any thing being the cause of his sickness, than he was that his was produced by mineral water, which he drank in the Highland hills, and at the very place where most of our cattle and horses have died. I did not see Hopgood until three or four days after his attack. When I visited him first, he was salivated, and his bowels had been freely acted on by oil, &c. He complained of feeling very tired, and although naturally neat, would not turn his head to spit, so as to avoid spitting on his bed. The action of the heart was so strong, that you could see the whole system shake at every pulsation. The pulse was slow and strong, not more than fifty strokes to the minute after I saw him; and I could count the strokes by putting my hand on the top of his head. I bled him freely three times, and he grew worse after each bleeding. He was disposed to faint when bled, and upon recovering from syncope, would vomit, and in a short time after, the pulse would be as strong as ever. I think he died upon the second day after I saw him. * * * * * I have been in the habit of making inquiry of intelligent persons in the different neighborhoods, where they are liable to the disease; and I find the same mineral exists in every neighborhood—one in Union, two in Henderson, and three in Daviess counties. In all those places there are sweet springs, the water running from thin strata of stone coal, which contains so much sulphate of iron, that the smiths cannot use it without overhauling and throwing out the mineral. All those places are in the immediate neighborhood of sugar-tree hills, and I think an unusual growth of poison oak. I am satisfied myself that the disease is produced by the mineral, and that it contains a portion of arsenic. There is also some petroleum on the surface of the water at these sweet springs; and stock resort to them as *licks*, for want

of salt. * * * * * There is no country I have visited, that contained more poison oak, than that rich section in which you are situated, until it was destroyed by the stock. Horses and cattle feed on it with avidity, wherever it grows, and with impunity. I have just settled in the woods where the poison oak is very abundant. I have no stable as yet, and my riding horse has skinned every poison oak vine I can see, as high as he can reach. There have been several trees cut down with large vines on them, and he has peeled them the whole length, where he could get at them, and devoured all the small branches. I believe that females are not so liable to this disease during lactation, though not entirely exempt; as there was an instance at Leonard's, when he lived on the hill at Highland, of a cow and calf dying about the same time—the cow running in a stalk field, and the calf in a calf lot. There are two distinct vines called poison oak—the five-leaved and three-leaved. Both climb trees, and very much resemble each other. The poison kind has three leaves on the stem and puts out more radicles, attaches itself more firmly to the tree, and bears a small bunch of berries, very much resembling grapes, but smaller and blue. I have known of children eating them twice since I can recollect. It did not prove fatal in either of the cases; but both were very distressing, and neither of the subjects could see for a week or more. And they were certainly affected very differently from the cases of milk-sickness which have come under my observation. The poison oak will not poison all persons, which any farmer will tell you. Some can cut a green vine, and mark their shirts while on them, with impunity. I was confined near a month, when a boy, by doing so, and was as full of blisters all over my body, as ever any person was of pustules from small-pox. I have conversed with several persons who have had the milk-sickness, some at different times. They all say they feel tired constantly, and are incapable of taking much exercise, until they have been freely purged, which generally cures slight attacks. They consider calomel injurious. Those who have been hard at work about the time of attack, rarely recover.

Senna, salts and jalap are considered among the best remedies. I think some of the preparations of iron would be good. Buzzards will not feed on the carcass unless compelled by hunger. I have noticed them sit upon trees around and watch the carcass until it rotted, without breaking the hide. But I have seen them, when they had been pressed by hunger, lying dead around the carcass. Some slowly expanded their wings, on my approach, as if about to fly, but, at the effort to rise, would tumble forward, unable to raise themselves. You know that we, at one time, had a fine pack of dogs. We frequently lost them by their eating carrion in the neighborhood of Highland. Some would come home with the appearance of being foundered, but were never fit for the chase afterwards, as they would take the 'tires' as it is generally termed; and but few horses or oxen are of much use, after having the disease badly. Mr. A. Silver once lived at Highland, and said he could cure his cattle, if he saw them in time, by giving them enough of the decoction of white walnut to purge them. Peter Rives, at one time, was under the impression that arsenic would cure the distemper in his dogs, and was in the habit of giving it freely in that disease. Several were cured of distemper, but they were of no use in the chase, and appeared to be affected precisely in the same manner as those which had the 'tires' from eating cattle that had died from milk-sickness, which is my strongest reason for suspecting arsenic in the mineral. The disease produced by poison oak (so far as has come under my observation) differs so widely from milk-sickness, that I cannot attribute the disease to that vegetable. * * * * *

Fall before last, we suffered very much for stock water, and several persons lost all the cattle they had. They died about these mineral springs in the hills at Highland, and the owners think they did not go into the bottoms. The people in the neighborhood of the disease, attribute it to something that grows in the rich sugar-tree hills exclusively; but we have the same kind of land and growth where there is no disease of the kind. I had forgotten to say that work oxen, regularly fed, are liable to the disease, at the mouth of Highland. If the at-

tack is slight, they will recover entirely by rest—if severe, they are worthless for the yoke afterwards. If the attack is slight, very hard labor will destroy the animal. Hogs and deer are not liable to the disease that I have ever heard of.

ADDITIONS BY DR. SUTTON.

In addition to the above, I will mention that since I commenced this letter, I have conversed with a very respectable lawyer, who has resided at Mill's Point, Ky., and at a place in Tennessee, where also the milk-sickness was common. He says that in both neighborhoods, the people ascribed the origin of the complaint to the water; that the disease was much more common in dry seasons; and that, at such times, certain springs blamed with its production, acquired a taste which was not observable when the water was flush. He gave a number of facts, tending to confirm the general opinion, but which would swell this communication to an unwarrantable length. Upon the whole, they corresponded mainly with those held by Dr. Taylor. Again, I was informed by the widow of a Dr. Rainey, who resided somewhere not far from Covington, and who had a good deal of practice in the disease, that he had under his care a man and his wife (perhaps both died, but of this I am not positive), who had abstained entirely from milk and its products for a long time, for fear of the disease, in whom, nevertheless, it was well marked. Of course I can say nothing as to the accuracy of his observations, or the faithfulness of the report. The lady is quite intelligent, but there are a thousand notions upon the subject; and I cannot say that I am satisfied there is any such specific disease.

February, 1841.

ART. III.—*Wound of the Antrum of Highmore, with destruction of the eye; fragment of knife-blade removed from the antrum two years afterwards.* By W. H. DONNE, M. D., of Louisville. Reported by R. S. Wendel, Student of Medicine.

Schuti, a gardener, aged 42 years, a native of Germany, in a rencontre with an athletic man, on the 3d of May, 1840, was struck with a dirk-knife which entered about an inch above the right superciliary arch, passed through the corresponding eyelid, downwards and backwards, evacuating the humors of the eye, and penetrated the antrum. The globe of the eye was divided by a vertical incision, through which the aqueous humor escaped; the iris was extensively detached at the ciliary margin, and could be partially seen through the transparent cornea—its surface being somewhat obscured by small coagula. The hemorrhage was slight, and easily controlled by moderate pressure. The patient complained of intense pain in the temple and cheek of the wounded side, shooting deep into the orbit. Three points of interrupted suture were used to approximate the edges of the divided eye. Lint saturated with laudanum and warm water, constituted the dressing.

May 4th.—Some tumefaction in the eyelid; pulse 110; tongue coated and dry; skin hot; patient has spent a very restless night. Ordered following medicine:

Tart. Emetic, gr. j.
Sulph. Magnesia, ℥ss.

to be dissolved in one-half pint of water, and a table-spoonful to be taken every half-hour, until nausea is induced—after which the interval may be increased.

May 5th.—Bowels freely evacuated; pain less; skin moist; pulse 90 and soft. From this period until the wound healed—the space of three weeks—no constitutional symptoms of an untoward character occurred. The patient, however, contended that a portion of the knife-blade remained in the roof of his mouth. But on the most careful examination no foreign body could be detected.

On the 10th of August, 1842, Mr. Schuti called and requested Dr. Donne to examine his mouth, stating that for six months past he had been annoyed by a rough projecting substance, which some person had informed him was a piece of dead bone, but which he believed to be the point of the knife, that had been driven down into the bone by the violence of the blow. On looking into the mouth a small black speck was discernible about one-half inch from the interval between the first and second molar teeth. The parts adjacent were somewhat tumefied and inflamed. Dr. Donne made several attempts to extract this body with a pair of common dissecting forceps, but found it immovably fixed in the substance of the bone. By dissecting around it with a bistoury down to the palate process of the superior maxillary bone, he was enabled to get a firmer hold, and with a pair of curved tooth forceps, succeeded in removing a fragment of the blade, 1¼ inches in length, and ¾ in. wide at the widest part; the extraction was not effected without considerable violence, and was attended with extreme suffering. The fragment came out with an audible snap which induced those present to suppose at first that it had been broken; but on inspecting its surfaces closely, they were found similarly oxidised and wanting the lustre which a recent fracture would have presented. Upon probing the aperture through which the fragment had been extracted, no other piece could be detected. This opening would scarcely admit the curved probe which Dr. Donne passed into the antrum, in order to satisfy himself that the whole of the foreign body was removed. The next day there was a slight discharge from the aperture, though the patient has suffered very little pain since the operation.

August, 1842.

[This case is certainly of a novel character. The rapidity with which the injury was repaired, and the length of time during which the fragment of the blade remained imbedded in the antrum, without causing much if any trouble to the patient, will at once strike the reader. It adds another to the

many evidences on record of how much a sound constitution can effect, when aided by simple, yet prompt and judicious treatment such as was pursued by Dr. Donne in this instance. We should think it not improbable, however, that the patient may still have some difficulty, as the long sojourn of the broken knife in the antrum must have left the mucous membrane in a condition to take on disease from a slight cause. C.]

Selections from American and Foreign Journals.

Effects of the Times on the Profession.—Strange as it may appear to some, those who are most familiar with the professional interests of the country know very well that the existing hard times affect even the profession of medicine. In the first place, fewer books are published, and consequently, one of the avenues, at least, to science, is partially closed. A disposition to curtail individual expenses in order to meet the world as it presents itself, deranged in its affairs, obliges those who always have been the generous patrons of authors and printers, to withhold subscriptions and purchases, and thus this department of industry and labor, connected with medical science, necessarily suffers. New books elicit new ideas in those who read them. Without their multiplication, therefore, there cannot be that mental activity which is produced by the silent, yet cogent stimulus of new treatises, new theories, or the announcement of important discoveries in medicine, surgery and physiology. Thus, in a measure, we are enabled to explain the comparative paucity of original communications in the journals, which are not so generously supplied by correspondents as they have been heretofore. Instead of reading, reflecting and writing as much as formerly, those who were efficient contributors to the scientific periodicals of this country are compelled to bestow much of their attention upon other objects, which the state of the times renders imperative.

In the course of an extensive tour through an enterprising section of the Union, distinguished alike for the fruitfulness of the soil and the vigor and intellectual energy of the inhabitants, the same complaint was heard that has so long rung in our ears at home. And it was a subject of frequent observation, that no class of men were more desponding, or seemed to feel the pressure more severely, than medical practitioners.

Now at first view it may appear absolutely absurd that the scarcity of money, over the civilized world, should so affect the condition of a physician—as though people could not or would not be sick in adverse as well as in prosperous times. The fact is, the hardness of the times has increased the labors of physicians, but they can get little or nothing for their business. Collections, in the country, cannot be made; and the physician, who of all men is dependent on others for the price of his time, finds an increase of fatigue, responsibility and vexation, without obtaining, in many instances, a decent support for his family. Thus, the hardness of the times directly affects the condition of our professional brethren. We are quite sure that this view of the matter is essentially true; and will explain satisfactorily any apparent lack of interest in the advancement of medical science, with those who were formerly distinguished for their activity in promoting its objects and extending its boundaries. The medical practitioner should remember, however, that he may in the end be a loser by retaining the small pecuniary amount which he has been in the habit of paying for medical books and periodicals.—*Boston Med. and Surg. Jour.*

Scriveners' Spasm cured by Division of Muscles. By Professor Stromeyer.—The disease which may be called scriveners' spasm, and consists of permanent contraction of the long flexor of the thumb, is not very rare. Several cases have been published in Germany by Albers, Heyfelder, and Kopp; and in France by Cazenave and David. The chief characteristic of this affection is an absolute incapability of using the pen, for writing, although the strength and motions of the hand remain unimpaired for all other purposes. Some authors regard it as a species of spasm; others, as depending on paralysis; it is generally permanent, but occasionally appears at intervals, and then is commonly brought on by long continued use of the pen. This affection, though apparently slight, is most obstinate, and resists every method of treatment that has hitherto been employed against it. The following cases, which we abridge considerably, had baffled the skill of Professor Stromeyer, until he had recourse to division of the flexor muscle, which was attended with complete success.

Case I.—J. M., a public writer at Hanover, labored under this disease during two years. A celebrated physician had tried every kind of remedy without avail. Whenever he began

to write, the muscles of the ball of the thumb were seized with spasm, which compelled him to desist, but the spasms did not appear at any other time. M. Stromeyer also tried a variety of means ineffectually, and then divided the small flexor muscles of the thumb. This likewise failed, and the sensibility of the palmar surface of the thumb was destroyed. It was now clear that the action of writing depended upon the long flexor, but the patient refused to permit any more operations to be performed on him.

Case II.—The subject of this case had suffered under the disease for fifteen years, when first seen by M. Stromeyer. The rigidity of the muscles of the ball of the thumb was not, however, present, but the last phalanx of the thumb became suddenly flexed, whenever the patient attempted to write or play on the piano.

The long flexor was not permanently contracted, nor did it impede any other motions of the hand. From the deep situation of the muscle it was not easy to divide it separately. M. Stromeyer bent the first phalanx strongly to a right angle, and at the same time turned the thumb as much out as possible; he then passed a very small, curved tenotome underneath the tendon, and divided it. The sensibility of the thumb was very considerably diminished after the operation, but was restored, on the dorsal aspect the next day, and on the palmar aspect within a fortnight. The natural power of moving the thumb, also, returned at the latter period, and the patient was able to write or play on the piano without the slighest return of the spasm.—*N. Y. Lancet*, from *Arch. Gen. de Med.*

Complete Prolapsus and Separation of the Vagina.—A woman, 25 years of age, who labored under under some slight disorder occasioned by errors of diet, took an emetic on the fourth day, which produced copious vomiting, and relieved her greatly.

A few days afterwards she began to complain of burning pain during micturition, and had some discharge of blood from the vagina, with severe pain in the external organs of generation. On examination, the external parts were found in a state of gangrene; on the following day the patient complained of an unusual feeling about the parts, and it was found that the whole vagina was prolapsed; as it was impossible to return it, antiseptic remedies were merely applied. The exposed parts now sloughed, and were finally completely re-

moved on division of a band which retained them superiorly. The fever and other unfavorable symptoms quickly subsided; to prevent adhesion of the parts, a piece of sponge, moistened with some aromatic decoction, was introduced into the vagina. The vaginal portion of the uterus now became adherent to the upper edge of the vagina, while the lower remained free, and a new canal was formed, being merely somewhat shorter than the original vagina. The woman recovered perfectly, and the functions of the uterus were soon restored.—*Provin. Med. Jour.*, July 2, 1842, from *Orvosi Tár, or the Hungarian Magazine of Health.*

Injury to the Cartilages of the Ribs—Removal of a portion of them, and Cure.—M. L., aged twenty-eight, was admitted into the University College Hospital, February 21, under the care of Mr. Liston. On the night of the 20th, he took six-penny-worth of laudanum for the purpose of self-destruction, but finding no effect from it, he took a dinner-knife, sharpened the point as well as he could on the hearth-stone, put it to his left side, rested the handle on the bed, and fell upon it. Says he tried to pass the knife between the ribs, but could not. There was some bleeding at first, but it soon ceased, and he tried several times to renew the bleeding, by passing the knife into the wound, and moving it about. He was brought into the hospital at three, P. M.

He is a tall, powerful man, good conformation, sanguine temperament, light complexion, and red hair. Has a wound three-quarters of an inch in length in the left side of the ensiform cartilage, not far from the attachment of the diaphragm. The bleeding had ceased; the wound was dressed with water-dressing. Ordered to have a purgative pill, followed by a dose of castor oil.

Feb. 22. Medicine has not operated; pulse 96, full, and rather inclined to be hard; breathes somewhat quicker than natural; great thirst; tongue covered with a white fur; wound painful, increased by coughing or lying upon his right side; mind much agitated; bowels open at four, P. M.

23. Pulse 104, soft and compressible; complains of pain in the wound on inspiration; less fever.

24. Improving; the wound has begun to suppurate.

26. Attacked in the night with violent pain in the side and dyspnœa; bled to forty ounces with considerable relief.

28. Health much improved; the wound discharges a dark-

colored matter, supposed to be the breaking up of a large coagulum. Made an out-patient on the 7th of March.

March 12. Returned to the hospital to-day, complaining that the wound of the side discharged a great deal on walking; walking and other exertion very much affected his breath, and caused a pain in his side, rather lower than the situation of the opening. Dressed with water-dressing, and a broad bandage to be applied round the chest.

14. Discharge continues very profuse; pressure on the parietes of the chest produces no increase of discharge, though it may be seen to ooze out of the wound during a forced inspiration; his health remains good; tongue clean.

16. Mr. Liston passed a probe to the depth of at least two inches into the wound. A collection of matter is supposed to exist somewhere about the attachment of the diaphragm to the cartilages of the last true ribs. Ordered opening medicine.

18. Mr. Liston made a T-shaped incision, passing through the original wound, and on dissecting back the flaps a small opening was seen passing through the cartilages of the ribs where they were united together, to the left of the ensiform cartilage, through which the matter was seen to proceed. A circular portion of two cartilages, nearly the size of a shilling, was removed with a strong blunt-pointed bistoury, half an inch of the point being broken off, and a large quantity of healthy looking matter gushed out. The bleeding was restrained by lint dipped in cold water, and the wound afterwards dressed with water-dressing.

19. No unfavorable symptoms; the wound discharges freely.

20. Complains of pain on inspiration, and uneasiness around the wound. Ordered three grains of calomel and one of opium every three hours.

22. Pain relieved; slight cough; bowels open.

25. Pain entirely gone, the wound contracting and granulating very nicely; health good; appetite voracious; tongue clean. Allowed to walk out every day.

30. Still improving in every respect.

April 8. Discharged cured.—*Phil. Med. Examiner*, from the *London Lancet*, May 14, 1842.

On the Influence of the Nerves on Muscular Irritability. By M. Longet.—M. Longet found that when a nerve of voluntary motion was cut across, on the fourth day thereafter, the

muscles to which it was distributed could not be excited to contract by irritating the nerve by means of a weak galvanic current. The muscles, however, supplied by this nerve, contract immediately on the application of the slightest stimulus to themselves, even at the end of fifteen days. Even after the lapse of a month, direct stimulation causes them to contract slightly, and may be recognised at the end of seven weeks; no irritation of the nervous twigs, however, excites the slightest motion after the fourth day. From the seventh week, the muscular fibre, already much blanched, seems to undergo a complete degeneration, and soon ceases to contract in the slightest, even with the most powerful stimulants. It is only then in consequence of a lesion of its nutrition that muscular fibre, in losing its organic characters, loses also its essential characteristic, irritability, which, however, as has been seen, remains a long time after all nervous influence has been suppressed.—*Edinburgh Med. and Surg. Journal*, from *Comptes Rendus des Seances de l'Academie des Sciences*, July, 1841.

New Mode of Treating Hydrocele. By J. Pancoast, Prof. of Anatomy, Jefferson Medical College, Philada.—Hydrocele in children, even where the opening has been closed, that led from the tunica vaginalis to the cavity of the abdomen, is a disease of frequent occurrence. In early infancy strong discutient lotions will usually suffice for its cure. But after the second year, some more efficient means are required to produce this result. Mere evacuation of the serum with a common lancet or trochar, or a number of punctures made into the sac with a large needle, so that the fluid may escape into the cellular tissue of the scrotum, and be subsequently removed by the absorbents, are the modes of cure commonly relied on. But I have found them so uncertain in their result, success in many cases being attained only by a repetition of the process, that I have latterly adopted the following plan of treatment, which in three cases that I have tried it in has proved perfectly successful.

I puncture the swelling, in front and below its middle, with a common thumb lancet. When the serum is discharged, a little pressure causes the serous or vaginal tunic to protrude in the form of a small cyst. This I lay hold of with a pair of forceps, and draw it out, as far as it will admit. I then divide the lower half of the cyst next the skin with a pair of scissors, and traction again being made upon the pedicle, still more of

the tunic may be drawn out from the upper portion of the scrotum, which is nipped partly off and treated in like manner as before. I repeat this process while any portion of the vaginal tunic can be made to protrude readily at the opening, so as to be laid hold of with the forceps. I then surround the side of the scrotum and the testicle involved with strips of adhesive plaster, after the manner of Fricke of Hamburg for the cure of hernia humoralis. By this means, the cellular tissue of the scrotum (the tunica vaginalis reflexa having been removed, to a considerable extent, with the forceps and scissors) is brought directly into contact with, and ultimately becomes adherent to that portion of the vaginal tunic which is closely attached to the fibrous coat of the testicle.

The child is allowed to run about as usual, and in a few days is perfectly well. Excepting as regards the puncture of the skin, the operation is entirely devoid of pain.

This plan of cure will, I think, be generally found applicable in children. It is certainly more speedy and certain in its results than any measure short of injection of the sac, which is not usually practised in children.

It would also, I think, be found successful in the recent hydrocele of adults, before the tunica vaginalis reflexa has become so coriaceous, or been so thickened by disease, as to prevent its being drawn out in the form of a cyst through a narrow opening. In one instance, where the puncture or palliative process had been several times tried without success, and in which I feared I might find a thickened membrane, I made the puncture through the skin with a curved bistoury, and pushing it on to the top of the sac, divided with the point of the instrument as I withdrew it, the anterior wall of the tunic, laying open the sub-cutaneous cellular tissue of the scrotum, but not cutting the skin. Subsequently, no difficulty was encountered in drawing out the tunic and removing it with the scissors.

April 20, 1842.

Since writing the above, I have operated upon another case in the same manner, in which the passage leading to the cavity of the abdomen had remained open. The cure in this instance has been slow and gradual, occupying about a month, and without the aid of a truss. The fluid re-accumulated in the tumor during the first week, but it was gradually absorbed, adhesion beginning below and proceeding upwards, until a radical cure was effected.—*Am. Med. Intelligencer.*

June 8, 1842.

First Introduction of Syphilis into Scotland.—At the Medico-Chirurgical Society of Edinburgh, Professor Simpson read a communication relative to the history of the first introduction and diffusion of syphilis in Scotland at the end of the fifteenth century. He cited official edicts of the Aberdeen Magistrates, and of the king's privy council respecting the new 'infirmitez,' issued during the currency of 1497, with various casual notices of the distemper from the contemporaneous writings of Dunbar, Lyndsay, Inglis, &c. In these early times the disease passed in Scotland under the various names of grand gore, gorre, pockis, spanie pockis, French infirmitez, &c. Dr. S. alluded to an entry in 1502–3 in the privy purse expense book of Elizabeth, Queen of Henry VII., as containing the earliest notice of the disease in England, that he had been able to meet with. The first Scottish edicts were made with a view of arresting the progress of the disease, and ordained the application of a hot key of iron to the cheek, as the punishment of those who infringed their regulations. The Aberdeen edict was dated only four years and a month after the return of Columbus from his first voyage to Hispaniola. This edict was remarkable as being founded on the idea that the new malady disseminated itself by impure sexual intercourse—while, as is well known, it was not for several years afterwards, that this opinion of its mode of propagation, was adopted by the medical men and authors of these times. The Edinburgh regulations pre-supposed the disease to be communicable even by the persons that took the cure upon them, although these persons were themselves uninfected. Lastly, Dr. S. proceeded to show from the old data which he had adduced, that syphilis was new to this part of Europe, at the date of the edicts, that it was hence different on the one hand from gonorrhœa, and on the other from the leprosy of the middle ages, both of which affections were well known in this country before the era in question.—*N. Y. Lancet*, from *Lond. and Edinb. Monthly Jour. Med. Sci.*.

Clinical Lecture on Delirium Tremens. By George Budd, M. D., F. R. S,, Prof. of Medicine. Delivered at King's College Hospital, Nov. 20, 1841.—The case of Embleton is a fair specimen of the delirium brought on by excessive drinking. During the years I was physician to the Dreadnought, I had constantly cases of this kind under my care. The frequency of delirium tremens in sailors is very readily explained. When a ship returns from a long voyage, the crew are paid

off. A man receives at once £40, £50, or £60, and is immediately laid hold of by the most despicable of human beings —the crimps, as they are called, or the agents of the keepers of the filthy lodging-houses in the neighborhood of Wapping. He is taken to one of these houses, and kept in a state of constant intoxication for a fortnight or three weeks. By this time his money is generally spent. His clothes are then pawned, and this supplies him with drink a day or two longer. When this last resource fails, when the system of robbery can be carried on no longer, the supply of drink is stopped, and the sailor is turned adrift to shift for himself. In a few days he is brought to the hospital in a state of delirium tremens.

I have known sailors, who had received as much as £70, reduced to complete destitution in the course of two or three weeks. During the time they are kept in a state of intoxication they eat nothing, often not so much as a morsel of bread, for days; they live, as they express it, on the liquor.

When they are brought to the hospital, the condition of all these men is very much alike. The face is flushed, the eyes are suffused, and there is often a peculiar wildness in their air and manner, even when there is no actual delirium. The tongue is pale, moist, and indented; and the hands as well as the tongue are very tremulous. Appetite is quite gone, and they have generally repugnance for food of every kind. In spite of this nervous agitation the pulse is steady and tranquil, and very seldom increased in quickness.

But what is characteristic of the disease, as characteristic as the trembling, is the loss of sleep. They all tell you that they have had no sleep for nights; and that the moment drowsiness comes over them, or even without this, at the approach of darkness only, they are haunted by visions of the most frightful kind; they see serpents about the bed, and are pursued by devils of every size and shape. The constancy of these horrid apparitions has furnished a name to the disease. The term, in fact, by which it is known to sailors, and a very appropriate one it is, is the 'horrors.'

The name has, no doubt, passed down through many generations of sailors. Smollet uses it in Roderick Random. Smollet, in early days, was a surgeon's mate in a man-of-war, and sketched Roderick from the life. Roderick, in relating his history, says, 'I awaked in the horrors, and found my imagination haunted by such dismal apparitions, that I was ready to despair.' This very properly happens to Roderick a day or two after he set sail. In delirium tremens from drinking, the patient generally gets more violent, and in every respect worse,

a day, or two or three days, after he has left off drinking. Sailors are themselves aware that a glass of grog steadies them when in this condition.

In some cases, the men are more violently delirious: they are continually vociferating, and talking in the wildest and most incoherent manner; they are in a state of great agitation and tremor, and their body is bathed in sweat; yet even in these cases the pulse is generally calm and steady.

The character which the delirium assumes is that of hallucination. They see unreal objects, and these objects are almost always of a frightful kind. In some cases, but these are rare, the illusion extends to the sense of hearing. They hear the objects by which they are haunted, talking, and occasionally calling them by name.

But hallucination is more rare for the sense of hearing than for that of sight: probably because more vivid impressions are received through the eye than through the ear. Ghosts are more frequently seen than heard. Dr. Abercrombie thinks that dreams are chiefly occupied with objects of sight. In his work on the Intellectual Powers, he says, 'I am informed by a friend, who is a keen sportsman, that he often dreams of being on a shooting excursion; that he starts his game and points his gun, but never succeeds in firing it. It sometimes seems to miss fire; but in general there is something wrong in the lock, so that it cannot be moved.'

It was probably the poet's own experience that frequent and deep potations give birth to hallucinations of a frightful kind, that suggested to Burns the scene of the witches in Tam O'-Shanter. Tam, returning late after a drinking bout, passes by All Hallowe'en Church, in which he sees warlocks and witches in a dance, with Auld Nick for their piper. The objects with which the fancy of the poet has filled up the picture are certainly frightful enough:—

'Coffins stood round like open presses,
That shawed the dead in their last dresses;
And by some devilish cantrip slight,
Each in his cauld hand held a light,
By which heroic Tam was able
To note upon the haly table,—
A murderer's banes in gibbet-airns;
Twa span-lang, wee, unchristened bairns;
A thief new cuttit frae a rape
Wi' his last gasp his gab did gape;
* * * * * *
A garter which a babe had strangled;
A knife a father's throat had mangled,
* * * * * *
Wi' mair o' horrible and awfu',
Which e'en to name wad be unlawfu'.

This description, though highly colored, is true to nature; but such hallucinations usually arise after prolonged excess, and not, as Burns makes it, after a single sitting.

Another character, very general in these cases, which seems allied to the frightful nature of the hallucinations, is despondency and a tendency to suicide. Even in slight cases I have known men suddenly burst into tears while I have been questioning them.

Well-marked cases of delirium tremens are easily recognised. Their characters are so striking, that, taken with the previous history of the patient, they can scarcely be mistaken; but this is not the case with the slighter degrees of the same affection. These are marked only by lowness of spirits, and inability to sleep; or by sleep which is interrupted by frightful dreams. It is a condition which is familiar to many by the name of the 'blue devils,' which, in the majority of cases certainly, must be ascribed to excess in drinking. Men of jovial habits—who take what is called a cheerful glass, and enjoy company and good cheer—are remarkably subject to the blue devils. They are low and desponding in the morning, and their nights are sleepless, or their sleep is broken by dismal dreams. In the language of sailors, they have the 'horrors.' It is the temperate man only whose spirits are uniformly good.

Embleton told us that the objects by which he was haunted, though continually shifting their shapes, were always of a blue color. I have often heard sailors make the same remark; and I am inclined to think that this is a very general character of such apparitions Müller, speaking of phantasms, says that they are generally divested of color.

I have said that in delirium tremens, the pulse, except after considerable muscular exertion, rarely exceeds its ordinary frequency. In cases in which it does, there is generally inflammation of some internal organ.

The organs most frequently inflamed are the stomach and the lungs.

It is not at all uncommon to find a man affected with the horrors, who, in addition to the ordinary symptoms—the delirium and the trembling—has frequent vomiting, a furred tongue, and a quick pulse. Such symptoms generally indicate inflammation of the stomach, and are of very bad augury; because, when they are present, the patient is unable to take solid nourishing food, which is a very important part of the treatment, and, indeed, frequently indispensable to recovery. In a case of this kind I have found the mucous membrane of the splenic extremity of the stomach reduced to a mere pulp.

The lungs are much less frequently inflamed than the stomach; but I have met with two instances of delirium tremens which proved fatal, apparently from the occurrence of pneumonia.

In none of the cases in which I have made an examination after death—in all, four or five—have I found any evidence of inflammation within the head, other than effusion of serum under the arachnoid. The symptoms do not depend on any inflammatory affection of the brain, but on exhaustion, consequent on over-excitement, and in part, perhaps, on the condition of the blood. We can hardly suppose that the blood should not become altered, and for some time remain so, by the continual admixture of spirits. The spirit undoubtedly exerts some degree of chemical influence.

Sailors, in whom I have chiefly observed delirium tremens, are men whose constitutions are not broken by habitual intemperance, but strong, robust men, most of them in the prime of life, who get drunk only while they are in port. From these circumstances the affection in them is somewhat different from what it is in the habitual drunkard; but the main characters and the indications of treatment are alike in both.

The chief remedy is opium; but it must be given in large doses, so as to procure sleep. In small doses, it does comparatively little good. When a man has been for days in a state of nervous agitation, and has had no rest for several successive nights, our object should be to procure sleep. I have often, as in the case of Embleton, seen a man in a state of raving delirium fall asleep under the influence of a large dose of opium, and, at the end of some hours, awake perfectly rational.

The plan into which I settled for the treatment of delirium tremens, such as I used to meet with in sailors, is to give one drachm of tincture of opium, every hour, for three or four successive hours, if the patient should not fall asleep before; and, as soon as he awakes, to give him a mutton chop, or some solid food.

I have already told you that these men, as long as their drinking bout lasts, eat nothing; and although, while the state of excitement continues, they have great seeming strength, and in some cases can be mastered with difficulty, yet, as soon as it subsides, they are always in a state of debility, and evidently require nourishing food. This is indicated, even while the delirium persists, by the condition of the tongue, which is almost always, in these cases, more or less indented; a condition you will generally find associated with states of debility.

Before they have slept they are unable to take food; their appetite is completely gone; a circumstance which must be attributed not to the state of the stomach merely, but to that of the whole nervous system; for the appetite generally returns when the system has been refreshed by sleep.

I consider this point—to give as soon as possible some solid food—a most essential one in the treatment; and have almost invariably found men get worse in cases where, from some mistake or neglect, it has been omitted.

I have said that opium should be given in large doses; but even these sometimes fail in procuring sleep. It is indeed astonishing how much of it can be taken by persons in this state of nervous excitement without sensible effect. In one instance in which I had left directions that a drachm of laudanum should be given every hour until the patient slept, ℥x. were given in the course of twenty-four hours, without producing the slightest sign of narcotism; and it was only after the last dose that the patient fell asleep.

A similar insensibility to the ordinary effects of opium is witnessed when it is given to relieve very severe pain or spasm. Doses, which in other circumstances would be dangerous, may be given not only with safety, but without apparent effect. But although large doses of opium may be given, and are even required, to relieve severe pain, or to control violent spasm, or to calm the nervous excitement of delirium tremens, you must not suppose thst its employment requires no caution in these cases. The rule generally laid down, and I believe it is a good one, is to discontinue the opium when it has produced contraction of the pupil. Different narcotic substances produce different effects on the pupil. Belladonna dilates it; the first effect of opium is to contract it. Contraction of the pupil shows, therefore, that the system is powerfully affected by the drug, and should caution us against its further employment.

When the opium acts favorably, when it procures a quiet sleep of several hours, the benefit resulting from it is remarkable: the delirium has ceased, the agitation has subsided, and, if the appetite have also returned, the patient is convalescent. But in some cases, opium, in however large doses we give it, fails in producing this effect. It calms the patient in some degree, and brings on a dosing state, which is often interrupted by startings, and from which the patient arises but little refreshed.

In many such cases, where opium had failed in composing the patient, I have seen admirable effects from wine or brandy, especially where the patient had left off drinking for several

days. The delirium and nervous agitation seem to result partly from the sudden withdrawal of the stimulus. I have remarked that the men generally are much worse two or three days after they have left off drinking, and that they are aware that a glass of grog steadies them. But I would only give wine or spirit when opium had failed to procure sleep, and when the delirium had persisted some days after the patient had discontinued drinking.

Another important point in the treatment of delirium tremens is, that the patient should be removed as much as possible from all causes of excitement: his room should be quiet, and few persons should be allowed to visit him.

The last point that I wish to impress on you, is, the great importance of narrowly watching the patient. I have already stated to you that in this disease, even in its lighter shades, the patient is possessed by gloomy ideas, and has often a strong propensity to suicide. He should therefore be narrowly watched, and every instrument by which he can effect self-destruction should be placed out of his reach.

For want of these precautions we had a very tragic scene on board the Dreadnought, in the summer of 1838. Three men, Parrymore, Baily, and Forster, were brought into the hospital the same day in delirium tremens. They were treated in the usual manner, and I believe a straight-waistcoat was placed on each. The day after their admission, Parrymore was very much better, and gave me a clear account of many of the particulars of his case—as, of the voyage he had last made, the time he had been in port, and the money he had spent. All restraint was in consequence left off. The same evening he cut his throat with a clasped knife, which sailors generally carry about them. The surgeon, who was in immediate attendance, found him sitting up in bed, bleeding profusely, and still hacking away at his throat, to all appearance perfectly insensible to pain. The divided vessels were tied, and the hæmorrhage stopped; but he died at the end of a few days, from the secondary effects of the wound.

Baily also, the day after admission, gave me a clear account of many particulars of his case; and I considered him in no danger. The excitement and commotion in the ward consequent on the attempted suicide of Parrymore, again threw him into the most violent delirium, in which he continued for two days. On the fourth day after his admission, I found him very hoarse from vociferations, but tranquil and rational. The straight-waistcoat was taken off, and orders were given that he should be narrowly watched. The same evening,

however, he eluded the vigilance of those about him, and threw himslf out of one of the port-holes into the Thames. A boat was immediately sent after him, and he was soon picked up, swimming lustily between the Dreadnought and the shore. When in the boat, he struggled violently to throw himself again into the river; and such was his muscular power, that it was with the greatest difficulty the two men in the boat could master him. They succeeded, however, in doing this, but Baily, apparently exhausted by his struggles, almost immediately expired. He was lifted into the Dreadnought a corpse.

We could not examine the body before a coroner's inquest had been held; and as this was not done for some days, and the weather was very hot (it was the middle of July), the body was too far advanced in decomposition to enable us to form a satisfactory opinion of the cause of his sudden death. I believe, however, that he died of pure exhaustion—the consequence of the powerful efforts he had just been making. He was one of the most muscular men I ever saw, and had no organic disease.

These cases, as you might expect, have made me very watchful over patients in delirium tremens. They should not be left a moment unguarded; and in hospitals where they cannot have a person in constant watch over them, I would always put on a straight-waistcoat, whenever I could do so without using violence or increasing the agitation of the patient. I make this exception, from a sense of the ill effects of excitement, and of the exhausting influence of great muscular exertion.

But delirium tremens, or at least a condition very similar to that brought on by excessive drinking, may be caused by any great shock to the nervous system, especially by surgical operations, or severe injuries.

When induced by this last cause, it is called traumatic delirium. But its characters are precisely like those I have before described:—nervous agitation, trembling, inability to sleep, and hallucinations, generally of a dismal kind.

The insensibility to pain (which I have before noticed in the case of Parrymore) in these cases is truly remarkable. Dupuytren, who has left a beautiful description of nervous delirium, says, that he has known patients in this state, with a comminuted fracture of the leg, slip off the bandages and walk about, using the broken limb without evincing the slightest pain; and others who had been operated on for hernia, introduce their finger into the wound, and amuse themselves

with twisting about the gut, as if they were doing it on the dead body.

He also particularly remarks, as all writers on the subject do, the state of the pulse. He says, 'the most remarkable symptom, in the midst of this disturbance of the intellect, is the calm of the circulation, and the absence of every febrile symptom. You see a patient furious; his face covered with sweat; his eyes glistening; his cries heard at a distance: you believe him affected with the most intense arachnitis. Approach him: his pulse is calm and regular; and the state of his skin removes every suspicion of inflammation.'

But, in other circumstances, you will occasionally meet with a condition of the nervous system very similar to delirium tremens.

In the 19th volume of the Med. Chir. Trans. is a paper by Dr. Seymour, containing three cases of mania, successfully treated by morphia. They all occurred in women.

In the first case the woman became affected, after suffering severe distress, in consequence of the death of a relation who died in her presence. She was occupied with gloomy ideas, and a belief of having committed indescribable crimes. Her nights were sleepless, and there was continual watchfulness, and restlessness of the body. Her pulse was not weak, and her bodily health was unusually robust. She recovered in six weeks, taking a grain of acetate of morphia every night.

In the second case the history is obscure. The woman had been bled and blistered for what was conceived to be inflammation of the lungs. She was extremely violent; fancied that her children were murdered, and their spirits returned to torment them. Her sleep was broken. There was no fever. She recovered under the same treatment.

In the third case there was great previous affliction, and the mania came on after childbirth. The symptoms were nearly the same, and she recovered under the same treatment.

It is impossible not to perceive the analogy between these cases and those of delirium tremens. There is the same absence of fever, the same restlessness, the same want of sleep, and the occurrence of visions and dreams of the same character, in both.

All the instances I have mentioned agree in the absence of fever, and in the regularity of the functions of the body in the midst of the general nervous disorder; in the presence of gloomy ideas and frightful dreams.

It seems, then, probable that opium will be beneficial whenever there is a combination of these conditions. Dr. Seymou-

says,—'Morphia appears to be of more use in what is termed melancholia, where the mind is tortured by imaginary want, ruin, or crime, than where the derangement partakes of more brilliant ideas; as of superhuman knowledge, dexterity, or wisdom: or than in those cases where one single idea occupies and absorbs the mind.'

I have seen one or two instances in which a state very like that in the cases related by Dr. Seymour, resulted from excessive study.

One was in a man with whom I was well acquainted at Cambridge. He became insane after an attack of scarlatina in the summer of 1828. He had been reading excessively hard, and was much exhausted, when he was attacked with scarlatina on his way to the Lakes, to spend the summer vacation. He was laid up with scarlatina a fortnight; and soon after was placed in an asylum, where he remained two years. At the end of this time he was released, resumed his reading at Cambridge, and took a wrangler's degree in the year after that in which he would have taken his degree in the ordinary course.

The character of his insanity was like that of persons in delirium tremens. He fancied that he was constantly surrounded by devils; and even now, ten years since leaving the asylum, he is convinced of the reality of these apparitions.

My attention has lately been called to another case of the same kind. A man, like the former, became insane after hard reading; and his insanity was of the same character. He was placed in an asylum, where he continued some years. Since his release he has turned author, and the books he has witten display considerable talent.

I have little doubt that such cases are allied to delirium tremens—that the insanity is the cause of nervous exhaustion—and that it is best treated by opium, generous living, and quiet; means so efficacious in the various forms of delirium tremens. It would certainly afford a medical man a high gratification to cure a case of this kind—to restore an educated and gifted man to his family and himself; but there is very little satisfaction in curing a man of the delirium that results from drinking, because he is almost sure to get into the same state again. The only chance for him is to become a tee-totaler.

Experience of the 'horrors' has certainly very little influence in deterring sailors from a repetition of the excesses by which they are brought on. Embleton told us that he had had the 'horrors' twice before; and men have often confessed to me that they have had them as often as seven or eight times.

I am afraid, therefore, that Burns' parting advice, in Tam O'. Shanter, has been lost on the lovers of tippeny:—

'Whae'er this tale o' truth shall read,
Ilk man and mother's son tak heed;
When'er to drink you are inclined,
Or cutty sarks rin in your mind,
Think, ye may buy the joys owre dear;
Remember Tam O'Shanter's mare.'

Experiments on Kiesteine, with observations on its application to the diagnosis of pregnancy. By ELISHA K. KANE, M. D. The following extracts are from a valuable paper under the above title, in the last number of the *American Journal of the Medical Sciences.* The paper was an inaugural dissertation for the degree of Doctor of Medicine, and is published in accordance with the recommendation of the Medical Faculty of the University of Pennsylvania.

"My mode of conducting the experiments was this. The recent urine was placed in open glass cylinders, of diameters varying from an inch and a half to that of a common tumbler, and protected from the dust by paper covers. Those were arranged in a dry, well ventilated room, where the temperature was uniform and moderate, and were exposed in groups to the equal action of air and light. I examined them frequently during the day; but as the changes were not rapid, I determined after a little while to note only one set of observations in the twenty-four hours. My notes were made upon the spot. If from any cause, an individual observation or a series was unsatisfactory, or inconclusive; or if it led to a different result from others, I repeated it at once with increased care; and I was always careful to observe the constitution, habits and circumstances generally of each patient.

The examination of the first group of cases satisfied me, that the urine during pregnancy assumes appearances different from those witnessed under other circumstances, and which I was therefore disposed to regard as characteristic of that state. Subsequent inquiries confirmed me in the general accuracy of this opinion, but compelled me at the same time to admit its liability to exception.

The more obvious of these appearances regard the superficial formation described by Dr. Bird, and recently investigated by Drs. McPheeters and Perry; but there are others which point to a series of intestine changes somewhat more obscure,

though scarcely less interesting. My observations applied to both; and I regret that the limited time at my command during the studies preliminary to graduation, obliges me to select a single class as the subject of this dissertation. I take, however, that indication which seems to be best fitted for practical usefulness in diagnosis, the *pellicular change*, and which I suppose to be most properly called the Kiesteine.

The urine, submitted to observation in the way I have described, presents but little change during the first thirty-six hours. The mucous flocculi, if they exist, gradually subside during this period, forming a whitish cloudlike deposite at the bottom and sometimes on the sides of the glass; while more or less alteration occurs in the color and tranparency of the fluid.

The surface remains for a short time entirely unchanged; but in most cases, a greater or less number of shining acicular specks, apparently crystalline, begins to be seen within the first eighteen or twenty-four hours. These are generally scattered over the surface without regularity; but in some rare cases, they are so disposed as to form a translucent film of uniform thickness, which afterwards assumes the more defined characters of the pellicle. How far these crystals are essentially connected with the formation of the pellicle, I am not prepared to say. In many cases, I have not succeeded in detecting their presence, even by a microscope; and, indeed, I have failed to discover any *unvarying* indications whatever of the approaching development of the kiesteine.

The cloudlike appearance, which is alluded to by Nauche and Eguisier, although possessed of much interest, I have not found to be a uniform premonitor of the forming pellicle; I have supposed it to be nothing more than the Enæorema of the older writers, depending upon the imperfect aggregation of mucous flocculi; for I have seen it repeatedly when there was no pregnancy to account for it, and it was uniformly absent where the fluid presented perfect transparency.

The time at which the pellicle begins to form varies considerably. I have seen it well marked at the end of thirty-six hours, and have known it to make its first appearance as late as the eighth day. At first, it is hardly discernible. It is generally seen forming at the centre or on the sides of the glass, presenting a delicate milky or bluish white aspect. It is however in some cases uniformly disposed over the surface from the commencement, and assumes the appearance of a nearly transparent film, which gradually becomes more distinct. But it has not always the continuous strongly marked

character, which some have ascribed to it. I have seen it begin in striated irregular lines, somewhat resembling a spider's web, in rings, circles, trapeziums, and irregular figures of almost every shape, which gradually became obscured by the full development of the pellicle.

When it has attained this stage, which occurs generally about the fifth day, it presents a continuous scum of an opaline white or creamy appearance, with a slight tinge of yellow, which gradually becomes deeper and more decided. The uniformity of this color, however, is generally broken by granulated spots of a clearer white, giving it a dotted or roughened aspect. The crystals of the forming stage now appear like shining points, and I have sometimes found numerous small brownish specks, sprinkled over the surface, not unlike the gratings of nutmeg. It is at this period, that the pellicle may be compared "to the fatty scum of cooled broth."

In this state it continues for some time, preserving all its characters unbroken. The glass, where the surface meets it, is discolored by a white opaline ring; and a series of such rings, varying in extent from a line to the fourth of an inch, marks the descent of the surface during the progress of evaporation.

The cheesy odor, mentioned by Dr. Bird as a valuable aid in diagnosis, and as "by no means unfrequent in those specimens in which the pellicle is very thick," I have found in but seven cases. Many pellicles of great thickness were entirely without it; and in two of those presenting it, the pellicle was thin and not very well developed. Drs. McPheeters and Perry were unable to detect it in either of the twenty-seven cases examined by them, and I have found it unequivocally developed in at least three cases in which pregnancy did not exist.

The pellicle, if left undisturbed for some days, breaks into cracks, commencing generally from the central portions, but not always extending to the edge of the glass. These are again crossed by other fissures, and the pellicle is more or less broken up. In the mean time, the flakes, which have been forming from the commencement of disintegration, have their edges depressed into the fluid, while at the same time the general thickness of the pellicle is much diminished; and this depression or dip gradually increasing, the depending particle s detached, and sinks slowly to the bottom. Its complete disintegration, however, is but seldom seen; being anticipated by the decomposition of the fluid. The deposite is of course considerably increased by the fallen portions of the pellicle, and is found irregularly disposed over the bottom of the ves-

sel; but as I have remarked, most abundant on the side farthest from the light.

I cannot agree with those who consider this deposite as presenting well marked distinctive characters to the eye, and I certainly have not found it uniformly coincident with the approach of the pellicle. It has indeed in many cases been absent at that period; and in others, until augmented by the detached pellicle, I have been unable to distinguish it from the very many deposites found in other urine. How far a chemical investigation may give it value, I am not prepared to say: although its liability to be confounded with other sediments makes it practically unavailable as a test, it offers a fine field for microscopic and chemical research.

This description of the appearances and changes of the pellicle, though more detailed than those of Nauche and his followers, still applies only to the better defined examples. In a considerable proportion of cases, some of the phases mentioned are not to be found together; and I have not been able by the most careful observation to discover the causes of variance. This I allude to here, because the absolute and unqualified language, which I have met elsewhere upon the subject, seems to me calculated to mislead the unpractised inquirer.

It must not however be inferred that the presence of kiesteine is determinable only by vague and undefined characteristics. On the contrary, the tables which are appended to this dissertation, will show that they are as well defined as most pathological phenomena, though like them they sometimes require for their discrimination a practised comparative scrutiny.

The table marked A exhibits a condensed record of my observations, more or less frequently repeated, on the urine of eighty-five pregnant females. Of these, as will be seen, sixty-eight gave a well marked pellicle of the sort called kiesteinic, eleven gave the pellicle under a modified form, but with appearances which enabled me to recognize it clearly, and six gave no pellicle whatever. Of these last, one was laboring under mammary abscess and convalescing from typhoid fever, and one was in a condition of extreme anæmia from repeated uterine hemorrhages; but the others, unless they succeeded in practising reiterated deceptions on me, which I can hardly believe, must be regarded as absolute exceptions."

"The urine of unimpregnated females in a state of health rarely undergoes any change which in this respect can be misapprehended. I have examined twenty-eight cases in a perfectly healthy condition, and have sometimes known pel-

licles form on the urine, as well as on that of males; but the distinctive character of the kiesteine was wanting in every case.

In certain pathological conditions, however, discrimination is somewhat more difficult. The pellicle that is not unfrequently seen on the urine in the last stages of phthisis, in arthritic diseases, and in cases of metastatic abscess, vesical catarrh, and uterine tumours, has points of resemblance to the kiesteinic which might readily mislead the unpractised."

"The particulars in which the kiesteine differs from other pellicles regard the manner of its formation and departure, even more than its appearance when developed. As I have already mentioned, it generally begins to show itself within a day, or at furthest within two days after the discharge of the fluid, and advances gradually to its complete development. The other pellicles, on the contrary, rarely give indications of their approach until the fluid has stood a longer time, or even till decomposition has supervened, and then form with rapidity. I have known them entirely defined within a few hours. The kiesteinic pellicle, when fully formed, has almost always a much greater degree of tenacity than the others: I have often, for purposes of microscopic examination, lifted large flakes entirely out of the urine; and when it was well defined, this was easily done: with the others it was never practicable. It seems also to be independent of putrefaction; it is not obscured for some time by the disorganization of the liquid on which it rests; and the characteristics which I have already described as accompanying its appearance are very seldom simulated.

The appearances which I have observed seem to point directly to the conclusion, that the formation of the kiesteine is unconnected with the presence of extraneous pus or flocculent mucus. I was aware that these and other animal matters might under certain modifications give rise to a scum upon the surface, the "cremor urinæ" of the older writers. This has been noticed by M. Becquerel, as especially observable in leucorrhœa; and I have observed it very frequently, not only in that disease, but in cystitis, gonorrhœa, vaginal and uterine hemorrhages, and immediately after delivery when the lochial discharge was mingled with the urine."

"In the present state of physiological chemistry, but little can be determined with regard to the nature of the kiesteine, and its very doubtful claims to be considered as a new principle. The absence of coagulation by appropriate agen s indicates in a measure that neither caseum nor albumen exists in

perceptible quantities; while the acid reaction up to the moment of disintegration seems opposed to the idea of its being a mere attendant upon increased quantities of pus or mucus."

"The pellicle, taken immediately from the urine on a glass plate, carefully introduced, when examined with a magnifying power of one hundred diameters, exhibited, while yet moist, a well defined series of flakes of a somewhat darkish yellow, made up apparently of minute granules. This appearance, which I at first thought to consist of minute globules of mucus or pus, was at once recognised by Dr. Goddard, as closely resembling, if not identical with, the granules of the colostrum. Having with some difficulty procured a supply of this fluid, a comparison of the two exhibited still more clearly this interesting resemblance. The granules of the kiestine were however more flattened than those of the colostrum, a change they might readily have undergone during their passage through the kidneys; but the general aspect of the two was such as to give strong evidence of their identity.*

Connected with these appearances, and sometimes obscuring them, the kiestine presented under the microscope an irregularly disposed amorphous matter, sometimes arranged in groups of granules that resembled the urate of ammonia,† and sometimes of badly marked globules, allied to those of pus or mucus, and accompanied by laminæ resembling epithelia.‡

Throughout the field of the instrument was seen, in varying numbers and distribution, a series of rectangular rhomboidal prisms, more or less distinctly marked, and strongly refracting light. The triangular prisms were also occasionally distinguished, but not in the "myriads" seen by Dr. Bird; and sometimes other crystalline forms were observed in addition to these. They all belong most probably to some of the earthy phosphates. Not only were the triangular prisms recognised to be those described by Dr. Bird, as belonging to the ammoniacal phosphate of magnesia, but by comparing them with the microscopic plates of Rayer and Vigla, and Mandl, (Etude Microscopique sur l'Uurine,) many others were discovered, coinciding with the varied forms of this prominent salt."

"In the pellicle not kiesteinic, the peculiar granular arrange-

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* This resemblance was very striking upon comparing it with the plates of M. Mandl.

† See Mandl, Raspail, and Rayer.

‡ See plates of Rayer and Vigla, Encyclgraphie Medicale, Vol. VI.

ment noticed as so strongly resembling the colostrum, was in no case present. Amorphous darkish masses, accompanied by various crystalline forms, were seen only. Where much discoloration existed from sanguineous or local intermixture, a strong resemblance was observed to the globule of the blood."

"I cannot regard the kiestine as an *unerring* test of pregnancy. I have already shown that it is present under other conditions of the system; and even where pregnancy exists, I am not satisfied that this indication is not always observable.

I am convinced too, that the kiesteine is not always distinguishable from other pellicles which appear on the surface of the urine. At least, I am bound to say, that, in the absence of other indications, I should sometimes have found myself unable to distinguish between them. Not that they are generally liable to be confounded; but between the imperfectly developed pellicle of the one character, and the best simulation of it which is sometimes presented by others, the distinction is too slight to be satisfactory or unfailing.

But with the qualifications which these remarks imply, I have no doubt that the pellicle which has been denominated kiesteine *is among the best*, if indeed it be not *the most certain*, of the earlier indications of pregnancy. I resorted to it habitually in my diagnosis in the obstetric wards of our hospital, and with constantly increasing confidence."

"The result of my observations may be summed up in the following general conclusions:

1. That the kiesteine is not peculiar to pregnancy, but may occur whenever the lacteal elements are secreted without a free discharge at the mammæ.

2. That though sometimes obscurely developed and occasionally simulated by other pellicles, it is generally distinguishable from all others.

3. That where pregnancy is possible, the exhibition of a clearly defined kiesteinic pellicle, is one of the least equivocal proofs of that condition: and

4. That when this pellicle is not found in the more advanced stages of supposed pregnancy, the probabilities, if the female be otherwise healthy, are as 20 to 1 (81 to 4) that the prognosis is incorrect."

"Since this dissertation was submitted to the Medical Faculy of the University of Pennsylvania, two papers on this subject have appeared; one by Mr. Letheby, in the *London Medical Gazette* of Dec. 24, 1841, and an elaborate paper by Dr. Stark, in the *Edinburgh Medical and Surgical Journal*, for January of the present year.

The facts observed by Mr. Letheby accord *generally* with my own. He found 'unquestionable evidence of kiesteine in forty-eight out of fifty cases between the second and ninth month of utero-gestation,' and was unable, like myself, to 'account for its absence in the two exceptions.' In seventeen non-pregnant women he found no indication of its presence; but detected it in the urine of ten suckling women, immediately after delivery, and onwards to periods between the second and sixth months, when it disappeared. The few microscopic results which he gives coincide also with my own.

Dr. Stark's paper is devoted to the signs of pregnancy, and among the rest to the state of the urine. He refers succinctly to his own observations relative to the kiesteinic pellicle, which he supposes to be derived from the suspended sediment; and he asserts that there exists a relative proportion between these and the earthy salts which enter into the composition of the urine. His paper derives its principal interest from his researches into the character of the sediment.

In the *natural sediment* of the urine of pregnancy, he was unable to detect the presence either of albumen or caseum by acids, alkalis, or alcohol, with the aid of heat; but when he added a certain quantity of milk to the urine, both these principles were discovered readily by the aid of acids, the other tests producing no effect: when milk was added in smaller quantities, however, it was *undiscoverable by any reagent.* Being unable to refer the sediment to any of the known deposites of the urine, though his investigations had immediate reference to its distinctive characters, he employed ether to effect a separation of the *animalized matter* which he thought it might contain, and he supposes that he succeeded by this means in detecting a substance entirely different from any heretofore known.

Failing to determine its constitution by chemical agents, he resorted to the microscope. He here found that this sedimentitious matter, whether examined while yet held in solution by the recent urine, or when it had assumed the form of a deposit, or when it had been disengaged by ether, was composed of distinct transparent or 'pellucid' globules, which when in their sedimentary condition bore a striking resemblance to the caseum globule of recent milk, but which when pellucid bore an equally strong resemblance to the serous or albuminous globule.

Dr. Stark now reduced the question to very narrow bounds, by inquiring as to the identity of this sedimentary matter with albumen, caseum, fibrine, and gelatine. He thinks that its

minute structure and chemical properties sufficiently distinguish it from the two first;—from albumen, because it dissolves, instead of coagulating, upon the application of heat; from caseum, because it is soluble in nitric and sulphuric acids, which exert on this principle a very contrary action. From fibrine, it has necessarily a still greater difference. There remains *gelatine;* and compared with this, the distinction was less striking. The globules of both under the microscope, were similarly formed, both were soluble in the acids and alkalies, and by the aid of heat. The only distinctive particular seems to have been the action of tannin, which, as is well known, precipitates gelatine from its solution in water. Some of the natural sediments, dissolved in boiling water, and cooled to a blood heat, were treated with a decoction of galls: a flocculent precipitate was at once produced; but instead of gelatinizing upon cooling—*it was deposited*; and instead of becoming more solid and more easily separable, upon reboiling, it again underwent solution.

Upon these grounds he attains the conclusion, which I give without comment, "that this substance is a matter *sui generis*, an elementary substance or principle, forming in some measure a connecting link between the albuminous and gelatinous elementary principles.' This substance he proposes to designate by the name of '*Gravidine.*'

It is unnecessary to say, that this discovery of a new organic principle, if confirmed by future investigation, will be a matter of great interest. I must confess, however, that the distinctive characteristics of the new substance do not seem to me very decidedly marked in the results announced by Dr. Stark; and such is the complex, and often deceptive nature of the investigations of physiological chemistry, that we have a right to wait for renewed experiments before admitting too implicitly the certainty of those he has described.

Dr. Stark considers that his experiments entirely subvert an opinion which has met with some favor regarding the theory of these appearances. Ever since the publication of Nauche's paper, the supposed presence of caseum in the urine of pregnancy has countenanced the idea entertained by Bird and others, already referred to, that the elements of the milk (not, as Dr. Stark infers, the milk itself,) might probably exist in the urine:—as, however, the matter is neither milk nor caseum, a theory based upon their presence must necessarily fall. The conclusion may be a correct one so far as the chemical analysis is concerned; and yet the connection between the kiestine pellicle and the mammary secretion may be adequately

proved by other evidence. If even the Gravidine be regarded as a new organic principle, its properties are not so peculiar, nor its analogies with caseum so remote, as necessarily to imply the operation of different causes in the formation of the two.

I have already mentioned my conviction, founded on personal observations, that the unmodified caseum is not found in the urine; but the presence of the colostral appearances under the microscope, and the numerous phenomena which I have described as attending the presence of the Kiesteine leave me no room to doubt its *intimate connection with the condition of lactation.*"

Dentition of Children at the Breast. By Professor Trousseau.—Suspecting that the generally received ideas on the dentition of children were not correct, M. Trousseau, from statistical observations not very numerous, has come to conclusions slightly different from the opinions generally believed.

Period at which the first tooth appears. This has been determined in 25 children; 13 boys, and 12 girls. It appeared as follows:

In 2 boys at	3 months.	In 1 girl at	3 months.
2	at 4	2	at 3
2	at 5	1	at 4
2	at 6	1	at 5
2	at 10	3	at 6
2	at 11	1	at 7
2	at 14	3	at 9
		1	at 14
Extremes, 3 months, 14 months.		2 months, 14 months.	
Average, 7 months.		6 months.	

The average time, then, at which the first tooth appears is, from these results, six months and a half; while the general belief at present is, that at eight months it makes its appearance. The common opinion that little girls are more precocious than boys, is also corroborated, as we find a difference of a month between the appearance of the first tooth in boys and in girls.

The first tooth is in general one of the middle inferior incisors. Of twenty-eight children this was the case in twenty-five. In two, a middle superior incisor appeared first; and in a little girl, the first molars preceded all the others.

Period at which the second tooth appears. The twenty-five children in whom a middle inferior incisor first showed, had for their second tooth, the other middle inferior incisor. The common opinion is, that this second tooth appears almost at the same time as the first; and it is quite correct. In twenty-five children, the time that elapsed between the first and second tooth, was, 1 day in 4 children; 2 days in 2 children; 3 days in 1 child; 8 days in 3 children; 15 days in 7 children; 30 days in one child; 90 days in 1 child. In six the time could not be determined by the mother.

The middle superior incisors appear next after the two middle inferior. In eighteen children, fifteen had these teeth after the middle inferior incisors. The time that elapses generally between the cutting of the inferior and superior incisors, is more variable than is generally supposed. In thirteen children in whom M. Trousseau was able to verify this; there was a lapse of 8 days in 2 children: 1 month in 3 children; 2 months in 3 children; 3 months in 1 child; 4 months in 1 child; 5 months in 2 children; 10 months in 1 child.

In general, then, there is a considerable interval between the appearance of the second first and the second second teeth. It may be established as a general rule, almost without any exception, that after the appearance of these four teeth, the two lateral superior incisors next cut the gum, and then the two inferior ones, so that the child has only two teeth in the lower jaw, while it has four in the upper. It is curious, M. Trousseau says, that this fact, so well known to mothers who have brought up several children, should be unknown to those who have written specially on the subject. Whilst a considerable period takes place between the first appearance of the inferior and superior incisors, the four superior incisors follow each other at a short interval. After these six teeth have come through, some time elapses before the next, which are generally believed to be the two lateral inferior incisors, appear. M. Trousseau, however, says, that as a general rule, one or several molars, and sometimes even the canine, are protruded before them. After the cutting of the four molars, and the two inferior lateral incisors, another considerable interval of time elapses, when the four canine successively appear; and then after another period, at the age of from twenty-four to thirty months, rarely sooner, the second set of molars come out.

In the second part of his work, M. Trousseau treats of the diseases incidental to teething, and especially of the diarrhœa accompanying it, and he combats the opinion so prevalent,

that nothing ought to be done for it. He shows that it is not only not useful, but decidedly injurious to the little patients—that it weakens them, and lays the foundation of marasmus, which if not checked in time, soon goes on to a fatal termination.—*Lond. and Edin. Monthly Jour. Med. Sci.*, May, 1842, from *Gaz. Méd de Paris*, 4th Feb. 1842.

Expulsion of a mass of hair from the Uterus.—By Henry R. Frost, M. D., Charleston, South Carolina.—To give full interest to the above extraordinary occurrence, it is necessary to detail the circumstances connected with a case of tedious and instrumental labor.

A colored girl aged 25 years, pregnant with her first child, was taken with the pains of labor, about 6 o'clock on the evening of the 9th of September, 1838. The habit of the patient was strong, and her health good. There was no occurrence during the first twenty-four hours to excite uneasiness, but the delay which occasioned the accoucheuse to suppose that there was something wrong.

On the evening of the 10th, I was called to see her. Upon examination, I discovered nothing at fault, but the slowness of dilatation in the os uteri. There appeared to be some thickening of its orifice. The liquor amnii was passing off slowly, the hairy scalp could be felt protruding, and the vertex resting upon the brim of the pelvis. To favor relaxation, a dose of castor oil had been administered in the morning, and a small quantity of blood taken from the arm. Expecting that the pains would be renewed, and finding nothing requiring my assistance, left the patient in charge of the midwife.

Sept. 11*th.*—This morning at 9 o'clock, find upon examination, that the vertex had made little progress; the os uteri being a little dilated, and thinner; repeated the venesection.

1 o'clock.—But little progress made, and as the pains were exhausting without producing much effect, recommended that they be allayed as much as possible; directed acetate of morphia in doses of one-sixth of a grain every half hour until easier.

7 o'clock.—The medicine had been taken, and some relief experienced.

12*th.*—The pains were removed during the night, but with little benefit. Upon examination, but little change was perceptible; the head had descended a little lower, and the protruding scalp filled up the os uteri. Apprehending that there

might be some obstruction in the passage of the head, and that difficulty would occur in the course of the labor, requested assistance.

The late Professor Wagner was called, and upon examination of the patient, concurred in the opinion I had formed of the presentation; recommended patience and perseverance. The powers of the patient were good, and as the pulse was more active than proper, further venesection was recommended.

The condition of the patient was little altered during the day and night.

13*th*.—Still trusting to nature, and nothing done to expedite delivery. At 8 o'clock P. M., the forceps were applied, but with no advantage. In the course of the night, the ergot in infusion was freely administered, but without any effect.

During the day a discharge of meconium in considerable quantity was noticed, an occurrence in a presentation of the vertex very unusual.

In the progress of the labor, it became necessary to draw off the urine twice a day, but it is somewhat singular, that though the catheter was introduced, a very small quantity of urine was removed, while a tumor which was formed by the distended bladder could not be reduced, though pressure was made upon it.

14*th*.—At 9 o'clock, A. M. the head was perforated and the child extracted. The operation was completed in about half an hour, and was well supported by the patient. The placenta was extracted, and the patient made as comfortable as possible; some soreness and tumefaction was experienced, and at night nearly two quarts of urine were removed.

15*th*, 16*th*, 17*th*.—The patient continues to improve.

Nov. 17*th*.—The progress of the patient was a very slow, but gradual amendment. About this period, she complained of fever, which continued at variable periods during the day, followed by very profuse perspiration. There was considerable discharge from the vagina of a puriform and very offensive fluid, pains about the region of the pubes at times considerable, occasionally tumefaction of the abdomen, the appetite variable. To relieve some of these symptoms, general treatment was adopted, and the use of an astringent injection.

19*th*.—The patient informed me that the vagina was filled with a substance, which prevented the introduction of the syringe, that sitting was very uncomfortable, and the feeling of something which was to be removed.

Upon examination, I discovered a substance of a dark color,

presenting at the os externum. I provided myself with a pair of forceps, and with little trouble extracted a mass, several inches in length (say 5 inches), and an inch and a half in diameter, at its largest part, looking like wet tow, of an irregular and somewhat pear-like shape. Carefully inspecting it, it proved to be a mass of hair, in short pieces, of an inch to two inches in length, very offensive, and saturated with a purulent looking fluid. The symptoms above noticed soon subsided, and the person recovered in a considerable degree. The preparation is now to be seen in the museum of the Medical College of the State of South Carolina.

The preceding occurrence affords a subject for speculation and inquiry.

It could not have been an offcast from the first child, the quantity of hair being too considerable, and of a different texture from what is usually found on a colored child.

It must have existed in the uterus at the time the first child was born, and must have remained in the cavity of this organ, and the vagina, nearly two months after the delivery. This is more remarkable, inasmuch as the placenta was removed after the birth of the child, and the condition of the uterus carefully examined.

When removed, it had no appearance of being enveloped with membranes.

Was it an abortive effort of nature in the production of twins? or was it of that class of morbid growths, which are so frequently formed in the ovaria?—*Am. Jour. Med. Sci.*

Structure of the Small-pox Pustule.—Mr. W. H. Judd has communicated, in the *Lancet* (June 12, 1841), some interesting observations on the structure of the small-pox pustule. Mr. J. has dissected the skin whilst it was under the influence of variola, in its various stages, and has discovered, he states, a very extraordinary septum and band in the small-pox pustule. The eruption, he remarks, commences by little red points on the skin resembling flea-bites. This appearance Mr. J. found "to arise from increased vascularity, caused by zones of minute vessels enlarging and projecting from the surface of the cutis; they secrete a thin serum, which gradually raises a ring of the cuticula externa from the rete mucosum, and so forms a vesicle without breaking up some of the thread-like attachments and ducts in the centre, between the cutis, rete, and cuticle. Hence the cuticular covering of the vesicle is

bound down at this spot by that thread-like band, which causes it to have a peculiar depressed summit. As the disease advances, the efflorescence and inflammation increasing, the serum becomes gradually more opaque, and coagulable lymph is next thrown out, which at once consolidates and forms a thin flat layer, or plate, shaped like a cymbal, but with a small hole left through its centre, from the circumstance of the coagulation taking place around the before mentioned thread-like attachment of the cuticle. About this period the fever and inflammation are increased (called the secondary or suppurative fever); and in this stage pus being secreted instead of lymph, it elevates the lately described cymbal-like plate, and causes it to divide the cavity horizontally into an upper and lower cell. As the disease advances, the progressive distension breaks up the remaining attachment between the cuticle and cutis: the pus in the cell below passes through the hole in the cymbal-like plate, or septum, above, and blends with the serum in the vesicle, changing it into a pustule (called the maturing stage). By this time the lower part of the pustule is completed by an extremely thickened state of the rete mucosum, which forms a raised lip, or cup, constituting its base; so as, in ordinary cases, to shut off and protect the cutis from the contact of pus and ulceration. Hence, in most instances, the pustule may be stripped off with the cuticle and thickened rete, leaving the cutis entire; but the cutis vera has frequently a slight depression, or pit, left from the effect of the ulceration which has penetrated the base of the cup; and occasionally a small papula or two of the cutis is found projecting into its centre, to which the thread-like band of attachment from the cuticle still adheres."

Mr. Judd next describes the decline of the pustule and its consequences. "About the eleventh day (varying a day more or less in different epidemics) the cuticular covering bursts a little to one side of the apex of each pustule, and its contents gradually ooze out. If the affection has run through its stages mildly, the chief part of the fluid evacuated is but opaque lymph, which drying, forms a dark crust; if, on the contrary, the disease has been severe or confluent, an offensive pus is let out, which leads to scabs, sores, and ulcers in various parts. In bad and confluent cases, where inflammation has run high, not only is pus formed in contact with the cutis at the base of each pustule, but there are also thrown off shreds or sloughs from the true skin, causing permanent depressions, or white pits, for life. Temporary red stains are always left upon the skin, for a time after this eruption, and are caused by increased

vascularity, thickening and rising of the rete; but these disappear if no ulceration takes place.

"Having anatomically traced the cause, we are now fully prepared to enter upon the second stage of our inquiry; viz. the prevention of the effect, or pits, and consequent deformity. In the first place, I shall premise the propriety of lessening, on the attack, the attendant fever and heat by all prudent means; as the height to which the edges of the cup, or scar, will rise, and the depth to which ulceration, or slough, will proceed, depend in a great measure upon the degree of inflammation and fever (though some families are certainly also influenced by constitutional peculiarity;*) but, commonly, I cannot advise blood-letting, especially to any extent, on account of the debility that invariably follows this disease; nor can I praise the use of antimonials and medicines that determine to the skin, as by increasing the cutaneous circulation they give rise to a fuller development of the pustules. I believe the safest and best mode of treatment is to give a brisk cathartic of calomel and jalap; to keep the patient on a strictly antiphlogistic diet; to put out the fire and lighten the clothing, so as to keep the sufferer's temperature as near the standard of health by the thermometer as possible, yet not so low as to impede a fair development of the eruption on most parts of the body. Nor must we abstract food, for so many days in succession, as to let the system flag from that cause; for a certain degree of vigor is needful: but all beyond this does harm. Just after maturation the patient will require support; and in some cases, meat, wine, or even bark. I should not have touched upon treatment, had not the size of the pustule, and consequent extent of the pit and deformity that will remain after the eruption, so much depended on it: and also the prevention of cerebral symptoms, sometimes said to occur on interfering, or suppressing, much of the general eruption.

"I shall next remind the reader, that the face, arms, and parts commonly exposed to light and air, always, as we might anticipate, suffer most deformity by small-pox pits; for air and light give vigor to arterial action, darkly tint the leaf, and heightens color in the cheek and pits. Hence small-pox pustules on the tongue, throat, and parts excluded from their agency, are nearly white, and seldom fully developed; and hence the success of Dr. Picton's method of preventing the ulcerative process, pits and stains, by the exclusion of light

* As is more fully described in my treatise on Syphilis, p. 122.

and air from the chamber of the sick. But in doing this the opposite extreme must be avoided; for it is well known that warmth and moisture (for you can scarcely exclude the air without increasing warmth and moisture) increase suppuration, and materially influence the development of all eruptions: even a poultice applied to a vaccine *vesicle*, from its warmth and moisture, will so alter the action of its secretory vessels, as in twenty-four hours to convert it into a *pustule*. Destroying the pores and the transparency of the skin by the application of nitrate of silver, successfully practised by Dr. Serres in this disease, amounts, in my opinion, only to the exclusion of light and gases.

"Mr. Le Grand's plan of smearing the surface with gum-mucilage, and covering with gold beater's skin, also lessens the action of light and excludes air; but it advances a step farther, by exerting another powerful curative agency, viz. an uniform pressure. Which reminds me of a method I have pursued for years, that of curing pustules, vesicles and slough-ing ulcers on the face, &c., by a stiff coating of hot yellow wax and oil, after they had resisted all common treatment.

"Mr. George's plan of caking over the surface with cala-mine, acts not only by excluding light, but by absorbing mois-ture, and through its astringent qualities causing contraction of the living pustule. I have long since so applied the white oxide of zinc, and found it to act in a similar way upon vesi-cles, causing them to break, part with their contents, and heal. A coating of pure liquor plumbi acts in almost the same man-ner; and many eruptions about the face, hands, and neck, that have been obstinate, cease to come out, and speedily heal, if light and air be excluded, and motion restrained by uniform pressure; though effected if only by adhesive plaster and a roller.* Thus we approach by degrees, and in effect, almost to the method recommended by Dr. Olliffe; viz. the applica-tion of emplastrum ammoniaci cum hydrargyro, which in it-self seems to possess the curative qualities of most of the other methods, with the valuable addition of power to promote ab-sorption of the serum and lymph, when applied early in the disease, or even of the raised edges of the cup-like bases, which give rise to pits, scars and seams in a later stage. If the serum and lymph be thus caused to be absorbed, the ve-sicles are not completed, and therefore the pustules do not

* I have not noticed the early puncturing of each pustule, which is useful to prevent pits, and but anticipate Nature's plan.

occur. And this power over the disease we may fairly consider the remedy to possess, knowing, as we do, that the absorption of new-formed parts can be so much more easily promoted than that of originally formed structure. Any other specific action from the mercury and ammoniacum appears very unlikely; and as to animalcula causing the pits, Dr. Olliffe may certainly dismiss that idea from his consideration, notwithstanding that animalcules exist in all long-retained secretions in the human body.

After numerous dissections and microscopic examination, I may affirm that this eruption does not commence by enlarged papillæ, but by simple zones of minute vessels projecting from the cutis, throwing out serum, and raising the vesicle: and that although the red depositions protrude beneath the cuticle, so as to be felt on the surface, it is merely from distension; and enlarged papillæ are not to be found until after the maturating stage, and not then, except in the base of the pustule, and only when ulceration has penetrated the surface of the cutis. In many cases, even where lasting pits and deformity ensue, sloughing and ulceration will not generally be found to have penetrated through the corium to the cellular membrane beneath. I explain these points merely to set right some mistaken theory in the lately published paper.

"The application of the mask, or plaster, in the very early part of the eruption, is well insisted on. It should be applied as soon as the nature of the eruption is ascertained, and the red projections can be distinctly felt as early as the third day, and be continued *without intermission or removal* until the maturating stage has been completed in other parts of the body, a period of about five days. That this mode of treatment possesses vast power to arrest the full development of the eruption is undoubted; and I conceive so innocent a preventive merits trial by all medical practitioners desirous of preserving the appearance of their patients, and of advancing science."—*Am. Jour. Med. Sci.*

Permanent Contraction of the Fingers. By Prof. Velpeau.—Permanent flexion or contraction of the fingers depends on a great number of causes; it may arise from wounds, paralysis of the extensor muscles, anchylosis of the joints, tumors, shortening of the tendons, irregular cicatrices, &c. On the present occasion, however, I wish to direct your notice to that form which depends on contraction of the palmar fascia, or on

the formation of fibrous bands extending from the palm of the hand to the fingers, and binding down the latter in their irregular position.

Before the remarks published in 1831, by Dupuytren, followed up by those of MM. Lemoine, Mandet, Vidal, Goyraud, &c. permanent contraction of the fingers had not been much noticed by surgeons. Boyer alludes to the affection under the name of *crispatura tendinum;* Sir Astley Cooper, also, speaks of permanent retraction of the fingers and toes, which he attributes to contraction of the sheaths of the tendons of the palmar and plantar aponeuroses. Dupuytren has clearly shown that the tendons are seldom engaged in this affection, but he has not so evidently demonstrated that it depends on induration, or shortening of one or more bands of the palmar fascia.

The disease now under consideration, is characterised by the formation of certain bands or chords, which are elevated beneath the skin, and extend along a considerable portion of the palmar surface of the finger; these bands generally occupy the median line, and are attached usually to the first phalanx, but sometimes prolonged to the second or third. According to Dupuytren this disease generally begins on the ring finger, and thence extends to the little finger; it increases gradually, without occasioning pain; the patient, at first, experiences a feeling of stiffness in the palm of the hand, and is unable to extend one or more fingers; the latter soon become contracted, and, in extreme cases, the tip of the finger rests on the palm of the hand. On examination, the first thing which we notice is a chord extending along the palm and finger; if you attempt to straighten the finger, this chord becomes more tense, and it disappears when you flex the finger completely; it is rounded off in shape, and forms a kind of bridge or prominence at the metacarpo phalangeol joint. The skin is wrinkled into arched folds, extending from the middle of the palm of the hand to the base of the finger. The disease, thus progressing, may attain its maximum degree of severity without causing any pain, or appearance of anchylosis; the joints are easily flexed, but cannot be extended by the most powerful efforts; Dupuytren has seen 150 pounds weight suspended on the bent finger without producing any effect on it.

This retraction of the fingers is a very disagreeable affection; it prevents the patient from seizing any large body, and, when he closes the fingers strongly, severe pain is felt. Persons laboring under permanent contraction of the fingers, are usually those who have made violent efforts with the palm of the hand, or been employed in occupations during which the

palm and fingers are frequently pressed against hard bodies. Thus, it is met with amongst masons, ploughmen, watermen, coachmen, &c. Dupuytren mentions the case of a literary personage who was attacked in consequence of frequently using a round-handled office-seal for his letters.

What is the anatomical lesion which characterises permanent contraction of the fingers? Upon this point there exists a variety of opinions. Some attribute it to thickening and contraction of the skin; others, to spasm of the muscles; disease of the flexor tendons; inflammation and contraction of the sheaths of the tendons; some change in the joints and their lateral ligaments; finally, contraction of the palmar fascia. This latter idea was chiefly supported by Dupuytren and Sir Astley Cooper; the following case was the one which influenced Dupuytren's opinion:—An old man, who had been affected for many years with retraction of the fingers, died in the Hôtel-Dieu; Dupuytren examined the parts with great care; on removing the skin from the palm of the hand, it was found that the folds of integument completely disappeared, the palmar fascia was contracted and shortened, and several bands passed from its lower part to the sides of the deformed finger. On endeavoring to extend the fingers, Dupuytren perceived that the fascia and these bands were rendered more tense; he divided the bands, and effected, at once, complete extension of the contracted fingers; the tendons and their sheaths had not been touched; the joints likewise and bones were completely free from any appearance of alteration. From this case Dupuytren naturally concluded that the disease originated in the abnormal tension of the palmar fascia, a tension depending on contraction excited by the pressure of some hard substance on the palm of the hand. The case certainly shows that contraction of the fingers may sometimes depend on a change in the palmar fascia, but it does not prove that this is always the cause. The bands or hard chords, which, as I have already mentioned to you, are seen projecting under the skin, extend to the palmar surface of the first phalanx, and sometimes to the second or third phalanx. Now we know that the palmar fascia terminates at the root of the finger, by becoming attached to the sheaths of the tendons and ligaments; besides, the fascia does not cover the ball of the thumb or extend to its root, yet we have permanent contraction of the thumb, with the sub-cutaneous chords already noticed. Having determined, by dissection, that the palmar fascia remained sometimes intact, after the removal of these chords, I announced, in 1833, that the prolongations mentioned by Dupuytren were

not always formed by the palmar fascia; but that they seemed to me to depend on the transformation of the subcutaneous cellular tissue into fibrous bands. M. Goyraud, surgeon to the Hôtel-Dieu of Aix has proved the correctness of this opinion by his researches on permanent contraction of the finger, published in the third volume of the Memoirs of the Royal Academy of Medicine. In addition to a carefully performed dissection, M. Goyraud relates the following case, which confirms my view of the nature of this disease.

"M. Chaine, steward of the hospital, presents a remarkable example of the permanent contraction of the fingers. The three last fingers of the right hand are flexed; of the left, the four last are in the same condition. The left ring-finger is more flexed than the others; on the right side, the little finger is the one most contracted; the middle fingers are only semi-flexed. The contraction came on gradually, and without any pain. M. Chaine is now 58 years of age; when at the age of 42, he first perceived that he was unable to extend the left ring-finger completely. The latter became gradually contracted, and the affection soon extended to the two neighboring fingers. Shortly afterwards, the right little finger began to contract, and then the ring and middle fingers of the same hand. The first phalanges are now flexed at a right angle on the metacarpal bones, and the second phalanges at various angles on the first. On attempting to extend the fingers, it is evident that they are retained in the flexed position by a number of bands running from the palmar fascia to the middle part of the fingers."

In this case, the disease consists in flexion of the first phalanx on the metacarpal bone, and of the second phalanx on the first; the joints of the third phalanges are completely free.

Hence, since contraction of the palmar fascia and its digital prolongations could only influence the first phalanx, it is evident that the contraction of the second phalanx must depend on some other cause. Even in the lectures of Dupuytren we may find a proof of this. Mr. L. had contraction of the ring and little fingers of the left hand, which were completely flexed on the palm; the second phalanx was bent on the first, and the tip of the third applied to the ulnar edge of the palm; the little finger was constantly flexed on the palm of the hand also. M. Dupuytren operated in the following manner:—He commenced by making a transverse incision, ten lines in length, opposite the metacarpo-phalangeal joint of the ring-finger,

the knife divided first the skin, and then the palmar fascia. The ring-finger was now reduced nearly to its natural position.

Being desirous of sparing the pain of a second incision, Dupuytren endeavored to prolong the incision of the palmar fascia, towards the ulnar edge of the hand, but could not succeed; he was, therefore, compelled to make a transverse incision opposite the articulation between the first and second phalanx of the little finger, and thus separated its point from the palm, but the remainder of the finger was still immovable. A third incision divided the skin and fascia, opposite the metacarpo-phalangeal joint of the little finger; the benefit was very slight, and he was forced to make an incision opposite the middle of the last phalanx, when the finger at once became straight. Is it not clear, from this case, that other parts besides the palmar fascia were engaged in the disease? Do not we all know that the prolongations of this fascia are attached to the sides and not to the middle of the first phalanx?

From the facts which have just been mentioned, M. Goyraud concludes that permanent contraction of the fingers never depends on the palmar fascia; that we should avoid dividing this latter in any operation for the relief of the disease, and that Dupuytren, probably, divided the subcutaneous bands developed in the cellular tissue, and not prolongations from the palmar aponeurosis.

This opinion seems to me to be too exclusive, and I agree with M. Sanson in thinking that permanent contraction of the fingers may depend on the palmar fascia, on the skin, or more frequently on transformation of the cellular tissue into fibrous bands.

The treatment of this affection is exclusively surgical; we can expect no benefit from any other means than division of the fibrous bands by which the finger is retained in the flexed position. Dupuytren made an assistant extend the finger as far as possible, and then divided the most tense part of the band; if the finger could now be straightened completely, the operation was finished; if not, he made one or more incisions above or below the first one. When the fingers became free, he maintained them in the extended position by means of bandages and splints, for a month or six weeks; but as soon as the state of the wound permitted, he commenced movements of flexion and extension.

M. Goyraud operates in a different way: he makes his incision along the side of the band, and in the same direction with it, and then divides the band in various places, or excises a portion of it. This method has many advantages over that

of Dupuytren; the patient runs less risk of inflammation extending along the sheaths of the tendons, or palm of the hand; it allows us to commence moving the fingers at an earlier period, and leaves a much smaller cicatrix. When we have restored the finger to its natural position by means of operation, we are not to think that the patient is free from the danger of relapse. Considerable care must be bestowed on the after-treatment; the joints must be frequently moved; discutient lotions, &c., applied, and the patients must be particularly cautioned against using any hard bodies, or employing himself in any occupation by which the palm of the hand may be irritated.—*Prov. Med. and Surg. Journ.*, Oct. 1841.

New Theory of Tinea; its supposed Vegetable Origin.—A few years ago a young Hungarian physician, M. Gruby, announced, as the result of an extensive series of microscopical observations, that the cutaneous disease, known by the name of tinea or favus, is owing to the development and growth in the skin of cryptogamous plants of the genus fungus, which he has called micoderme. He tells us that they exhibit the aspect and form of such vegetable productions from their earliest appearance to their complete maturity, at which stage, if examined with a magnifying glass of two or three hundred powers, he has distinctly recognised the fruits or sporules in the interior of their cavities, as we observe to be the case in other fungi. He is of opinion that the disease is propagated by these seeds. This novel idea of the etiology of the disease has excited much attention among the French dermatologists; and it is but just to M. Gruby to acknowledge that the researches which have hitherto been made on the subject at the St. Louis Hospital in Paris, have tended to confirm the accuracy of his statements.

The treatment, naturally suggested by this theory of the disease, is that of applying caustics or whatever is calculated to destroy the vegetable substance.

M. Devergie has, during the last year, been giving an extensive trial to a solution of the acid nitrate of mercury (of the French codex): the spots become at first of a reddish yellow color, and subsequently black after the application.

M. Emery, of the same hospital, is in the habit of employing a strong solution of iodine for the same purpose, and it has appeared to answer extremely well.

In another article in the same journal, Dr. Petel recom-

mends an epilatory ointment; as, in his own opinion, the only prospect of effecting a rapid cure depends upon extracting the hairs from the diseased spots. This gentleman's experience, however, cannot well be trusted to; as he tells us that tinea is never present where the hairs have fallen out, and that the method which nature follows is always by the removal of the hair. He tells us, too, that all internal and external remedies are of little or no use until the hairs are extracted, or fall out spontaneously. It would seem, from what he says, that the empirics, MM. Mahon, have more success in the cure of the disease than any of the regular practitioners in Paris: their plan consists in applying, first, a strong lixivial soap to the head, and then an epilatory plaster, which, when removed, draws the hairs off with it.

Dr. Pelet recommends the following formula for an epilatory ointment and powder:—

Take of Soda (of commerce) - -	60 parts.
Slaked lime - - - -	4 "
Lard - - - - -	120 "
Mix together.	
Take of Quicklime - - - -	120 parts.
Powdered Charcoal - -	8 "
Mix together.	

After cutting the hair very short, the crusts are to be detached by applying linseed poultices to the scalp, and washing it repeatedly with soap and water. After several days' use of these means, all the affected parts are then to be rubbed with the ointment: this is to be repeated daily. The swelling and redness of the scalp gradually subside, but without ever ceasing entirely. The pustules, the successive reproduction of which keeps up the disease, become more rare and appear only at long intervals. To effect this change, from two to three or four months are often required. When this is the case, a pinch of the powder is to be sprinkled among the hair every second day or so. The hair becomes gradually loosened, so that it can be easily detached with a fingers or with a forceps, without causing pain. When the affected parts are rendered quite bald, the treatment is nearly at an end; all that is necessary is to anoint the head with a small portion of the ointment every two or three days, and to keep it exceedingly clean.—*N. Y. Lancet*, from *Bulletin de Therapeutique.*

Case of Gun shot Wound of the Face, with loss of a greater proportion of the Tongue, and extensive lesion of the bony structure, successfully treated; together with an account of interesting nervous Phenomena, resulting from the injury. By J. F. Peebles, M. D.—In the month of August, 1840, Washington Perkins, a middle aged man of robust constitution, but intemperate in his habits, induced by a fit of jealousy to attempt self-destruction, placed the muzzle of a fowling-piece, charged with duck-shot, immediately below and in front of the angle of his right jaw, and discharged the gun with his foot.

I saw him a few minutes after the accident; the hemorrhage was frightful, though he was composed and sitting up in bed. Upon examination I found an entire breach in the inferior maxillary bone at the point where the shot had been received of more than inch in length, involving the loss of the two lower molar teeth. Passing obliquely upwards through the mouth, the tongue was torn across in the line of the shot, all the free portion of it with the attaching frænum, completely severed and thrown forward between the front teeth. The charge passed out through the antrum about three quarters of an inch below the eye, carrying with it also the two cuspidati and their alveolar processes.

In addition to the injury of the inferior maxillary bone already named, there was a transverse fracture at the symphysis. Owing to the nature and peculiar situation of the injury, the means for arresting the profuse hemorrhage were confined principally to rest in the recumbent posture and cold applications to the head, face and neck. But the quantity of blood which had found its way into the stomach, and still continued to trickle down the throat, despite our efforts to prevent it, very much embarrassed and impeded their effects by the frequent retchings it induced. As soon as fainting came on, however, firm coagula formed in the cavity of the mouth and the orifices of the wounds, and the hemorrhage entirely ceased. In this state he was left for the night with directions for the *diligent* continuance of rest and the cold applications to the head and face.

During the night, from the frequent gratification of his intense thirst, the coagula were removed, and the bleeding partially returned, but a bit of ice in the mouth controlled it until the following morning, when all oozing was promptly suppressed by pledgets of lint soaked in a solution of kreosote applied on the bleeding surface.

His face and wounds now presented the following appearance. His mouth, particularly the lower portion of it, was

drawn to the left side; he complained of feeling a notch in the glass from which he drank, owing to loss of sensation in the right portion of his lower lip, phenomena which indicated lesion in the motor and sensitive nerves which supply the lower portion of the face. Over the inferior maxillary bone where the charge had entered there was a circular but jagged wound of over an inch in circumference, either way, extending up on the neck. On introducing the finger the fractured ends of the inferior maxillary bone were found to present a remarkable peculiarity. Instead of being shattered, and split or splintered as might have been expected from the violence of the accident and the nature of their structure, the ends of the bone were found presenting regular and transverse surfaces, as if only that plug of bone had been clearly removed which had received the violent charge, without material injury to the adjoining portion. The osseous system of this man had always exhibited evidence of remarkable fragility. He had suffered fracture of the thighs five different times, and as it is usual in individuals suffering from fragilitas ossium, the bones had in each instance united, with but little inconvenience, and with remarkable facility. Was not the regularity and favorable nature of the fracture to be attributed to this condition of the osseous system, which, doubtless, was general?

The end of the tongue was retracted and swollen, so as considerably to impede deglutition. The left antrum was exposed, while the external wound above presented the form of a triangular incision, with a flap perfectly preserved and thrown back. This was now brought down, the parts adjusting themselves perfectly together, and confined with adhesive plaster.

The portion of inferior maxillary bone between the symphysis and the breach at the angle had fallen inwards, protruding the teeth longitudinally into the mouth, and was so loose and detached as to occasion some thoughts of the propriety of its immediate removal. It was however erected into its proper position and confined as securely as the circumstances would permit, and for the few succeeding days the patient remained tolerably comfortable. After this time for the succeeding ten days alarming hemorrhage from time to time continued to recur, but by the diligent continuance of cold applications to the head and face, together with the topical application of kreosote to the bleeding surface of the tongue and cheeks, it was checked; when he ceased to suffer further annoyance or danger from this score. At the end of the second week the external wound over the antrum had healed by the first intention, and although the antrum still remained ex-

posed, the wound in the superior maxillary bone gave no further inconvenience. The tongue was also well, and healthy granulations were shooting up in the wound in the right cheek. The detached piece of inferior maxillary bone became now the most embarrassing feature of the case. As it was not fastened at either end it was impossible, such was the state of the external wound, now to adopt any means by which it could steadily be held in its proper place a sufficient length of time for union to occur; and for upwards of a month the prospect of its removal, either by necrosis or excision, was improbable. About the middle of the second month, however, it had united at the symphasis, and at once the health of the patient, which had been kept feeble by the exhausting discharge and irritation about the mouth, rapidly improved.

From this time the contraction of the muscles gradually approximated the ends of the inferior maxillary bones, and at the termination of the fourth or fifth month they became united, and the cure was complete.

The following is the condition of the man's face at this time. Considering the great loss of bone, its general contour is but little altered. The inferior maxillary bone, though somewhat shortened, and with the exception of a slight protrusion where the union at the symphasis occurred, is perfect and sufficiently strong for the purposes of mastication. The remaining portion of the tongue, doubtless from the long inactivity of its muscles, is atrophied to a mere membrane. It has well developed papillæ, however, and the taste still remains unimpaired. It affords no assistance in speech, or in mastication, (the finger being used in the latter operation to keep the material between the teeth,) but remains motionless on the floor of the mouth. The deglutition is perfect. The membrane covering the exposed antrum is healthy. The mouth is still partially drawn to the left side, and the muscles of the lower part of the right side of the face take no part in the expression of the countenance. During laughter they are motionless, grotesquely distorting the face. But as this state of things is confined to the lower part of the face, the eyelids and muscles on the side of the nose remaining unaffected, it is probable that the lesion is confined to the lowest branch of the *portio dura* on the face. A portion of the motor branch of the fifth pair is also complicated in the lesion, as the muscles of the right cheek are atrophied, and flap, from a want of consent between their action and the motions of the jaw, in such a manner between the teeth as to prevent mastication on that side. But the *sensation* has returned in the lip. This occurred soon after union had

begun at the fracture near the symphysis, proving consequently, that the paralysis which had occasioned the loss of sensation was owing only to the pressure exerted by the displacement of bone, on the branch of the third division of the fifth pair of nerves, which emerges from the anterior mental foramen to be distributed on the lip. This man has returned to his old habits, and is frequently seen intoxicated about the streets, yet the bones of the face and the mucous membrane of the mouth continue perfectly healthy. Indeed the whole history of the case manifests a hardihood, and a strong disposition to the healthy reparation of injury in the osseous system which, I think, is quite remarkable.

PETERSBURG, March 22, 1842.

Account of a Phrenological Visit to the Penitentiary for young Criminals at Paris, made by M. VOISIN, *in Company with a Committee of Members of the Royal Academy of Medicine, on February* 17, 1839.—In addition to M. Voisin and the committee from the Academy of Medicine, there were present MM. Boullon and Pontignac de Villars, of whom the former was governor of the prison, the latter, secretary. Four hundred young criminals were examined, one by one, by M. Voisin; who, having looked at the form of each one's head, and examined it with his hand, directed him to go to the *right* or the *left*, according as his character or natural endowments appeared to be good or bad. These he subsequently divided into four classes, putting the worst in the first, the best in the fourth, and arranging in the two intermediate series those who formed a sort of *juste milieu* between the others.

Of the 700 boys originally examined, 254 were selected by M. Voisin as those whose good or evil qualities were most distinctly marked. The fourth, or best class, contained only 25, or one tenth of the whole; while 61 were arranged in the first or worst class. Of the remaining 168, 77 were placed in the third class, 91 in the second, the bad again preponderating.

M. Boullon, then gave his evidence as to the character of the youths thus classified by M. Voisin. He stated that M. Voisin's first class included, in a very great proportion, the bad characters in the house, or those whose intellectual faculties were most limited. The second and third divisions appeared to M. Boullon not to offer any striking differences be-

tween each other; but the fourth class comprehended almost all those children who were most docile, most intelligent, and most industrious. This class included the greater number of those who were employed as monitors in the school, or as overlookers in the workshops. The testimony of M. de Villars corresponded almost completely with that of M. Boullon.

A long discussion followed the reading of the report in the Academy. The two chief objections raised by the debaters were, that the testimony of the governor and secretary of the gaol was given after M. Voisin had pronounced on the characters of the boys, instead of before he had expressed his opinion; and secondly, that M. Voisin's classification implies that the intellectual and moral faculties are intimately connected, and become developed in the same proportion, while in reality no such absolute relation between mental and moral endowments exists.—*Bulletin de l'Académie Royal, Novembre*, 1841.

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REPORT ON THE MEDICAL COLLEGE.

A document bearing the above title recently appeared in one of the newspapers of this city, as part of the proceedings of the city council, and has, we understand, been distributed in the form of extras through the city and abroad over the country.

We have perused the so-called Report with all the care that such a document demanded, and with an interest not a little heightened by the circumstances under which it appeared. Its object was to procure the transfer of the Medical Institute, its grounds, apparatus, &c., from the present Board of Managers to the "Trustees of the Louisville College." Yet strange to say, the Committee from whom it emanates, almost forgetting the Managers, proceed to heap charges and opprobrious epithets on the present faculty of the Institute! However cogent these were to the Committee, and however pertinent to their design, they were deemed totally unworthy of consideration by a majority of the Council, who peremptorily rejected the report. The whole paper is conceived in the worst possible spirit, which, notwithstanding the attempted disguise, is so plain that he who runs may read. It is wholly *ex parte* in its character, and full of gross misrepresentations and misstatements. It is not our purpose, however, to enter into an examination

of this document now. The Faculty of the Institute or the Board of Managers (we are not informed which), have in preparation a reply which, it is understood, will be both full and explicit. When it appears we shall endeavor to lay such portions of it before our readers as will enable them to see the matter in its true light.

The individuals at the bottom of this movement, and the motives by which they are actuated, are alike understood and appreciated. It proceeds from certain factious and disappointed members of the profession here, who from out their holes and hiding-places have kept up a series of petty annoyances for years. But in this instance they evince a degree of *malignity* and *moral turpitude* that is rarely witnessed among men professing to be honorable. In procuring the publication of this report, *they carefully concealed the fact of its having been rejected by the City Council*, nor was such statement made until called for through the public prints. Conduct like this will meet with the hearty execration of every honest man, and with that retributive justice which, however tardy, is ever sure.

The friends of the Institute (which is the true object of hatred) have in the meanwhile nothing to fear. The blow thus intended to inflict a fatal wound will recoil on the heads of its enemies. The Faculty were never more united and harmonious; they are firmly seated in the confidence of the community, a confidence founded on their worth as private individuals, and their ability as public teachers, and are filled with the same vigor and the same enthusiasm, which in the short space of five years have carried the school from inconsiderable beginnings and made it, in point of numbers and influence, the third in the Union. The citizens of Louisville look with pride and affection on the Institute, the noble monument of their own munificence, and will mete out prompt punishment to those who attempt to check it in its swift career to glory and renown, or blight the brilliant hopes that cluster so thickly around it. C.

UNIVERSITY OF VIRGINIA.—LATIN DIPLOMAS.

Our contemporary of the Boston Medical and Surgical Journal, notwithstanding the deplorable error in his "Natural History of Fishes, &c.", and notwithstanding, too, his excessive irritability (an infirmity which in his case might be called *touchiness*), brings

to light a good thing now and then. Witness some remarks on the University of Virginia, in his Journal for August 10, from which we make the following extract.

"But there is one feature in the character of this school, so unlike that of any other amongst us, and yet so much in advance of them all in one particular respect, that not to proclaim it loudly, would do the institution injustice. It is, that 'any person of approved moral conduct may offer as a candidate for graduation, and receive the degree of M. D., without reference to the time he has been engaged in the study of medicine, or of joining the school, provided he undergoes, in a satisfactory manner, the various examinations prescribed by the enactments.' Here is an actual advancement in the mode of conferring degrees, which might be copied in other institutions, to the manifest advantage of society and the general interest of the institutions themselves. The faculty does not inquire of the candidate for their honors, whether he has studied five years or five days; but simply examines him in all that appertains to the knowledge which the statutes of the Legislature and the University declare to be the full measure of a doctor in medicine. If he sustains himself in the trial, he is at once presented with a testimonial of his attainments. Either this natural and philosophical system—which is essentially a common-sense affair—must ultimately be imitated by neighboring colleges, or we imagine the current will certainly by-and-by set in the direction of Virginia."

The feature here spoken of is entirely new to us, and possibly to most of our readers. We must give it our hearty approval. It seems perfectly consistent with that broad and liberal spirit that should characterise *all* institutions in this country. Our medical schools, in some of their regulations, are copied too closely after those of the old world, and unfortunately their models are far behind the genius of the age. If we make them, as we certainly do in some measure, the avenue to distinction, their approach should be left free and unobstructed. There is no reason why one, who, by his own unaided toil, in silence and seclusion, has qualified himself for the honors of the doctorate, should be denied them. In truth, the *reason* in the case is all on the other side.

Another matter, "essentially a common-sense affair" too, brought to mind whilst reading the article from which we have just quoted, may be mentioned here, although the connection does not seem very close. We allude to the *Latin* diplomas still retained by all of our colleges whether medical or literary; in some the degrees are even *conferred* in the Latin language. The custom is an old and time-honored one, it is true, but it has long survived the necessity which

gave it birth, if such was, indeed, its origin. We had almost said, despite the seeming contradiction, that it is a relic of barbarity, and in reference to the barbarous Latin in which the diploma is generally couched, the expression might be allowed. If ever there was a good argument in favor of this custom, there certainly is none now. In many, if not most cases, it amounts to a positive absurdity. Many times the parchment is about as intelligible to the young man receiving it, as if filled with so much Choctaw or Pottawatomie. A medical friend with whom we were recently conversing on this subject informed us that when he was in Philadelphia, several years since, it was a very common thing for the medical graduates of the University of Pennsylvania to be running about the city to the various scholars of their acquaintance in order to procure a translation of their diploma. He heard and witnessed several such applications to the late Dr. Godman, who stated that it was an annual occurrence, and that the young men gave as a reason for so doing, the mortification they should experience to return home with a testimonial that they could not read. No doubt similar occurrences take place at every medical school in the country. Could any thing more forcibly demonstrate the utter absurdity of the whole proceeding? Let us not be understood as running a tilt against classical learning; that is a very different affair. No one feels a greater reverence for what are called the classics than ourselves. At the same time, however, this does not blind us to the claims of our mother-tongue; and we hope to see the day when both British and American colleges will employ it in the formulæ of their diplomas.

C.

DUNGLISON'S AND BELL'S MEDICAL LIBRARIES.

We regret to learn from an advertisement on the cover of the last number of the first named journal, that its publication ceases from the date, ending with the excellent treatise of the late Dr. Hope on the Diseases of the Heart and Great Vessels. The universal pecuniary embarrassment of the country is pleaded by the publishers as a reason, the receipts for some time not having justified its continuance. We sincerely wish that the intimation given by them of the resumption of the work at some future day, may be realised.

The Quarterly Library of Dr. Bell is now the only periodical of

the kind existing among us. It sustains its well-earned reputation. The last number is a very valuable one, containing the several treatises of Gordon, Hey, Armstrong and Lee on the history, pathology and treatment of *Puerperal Fever and Crural Phlebitis*, with an introductory essay by Dr. Meigs of the Jefferson Medical College. Now that its contemporary has stopped, this should, and no doubt will receive an accession of subscribers. It is certainly one of the cheapest as well as most commodious forms of increasing a library.

C.

PRIVATE MEDICAL INSTRUCTION.

We have received, and notice with pleasure, the circular of John R. W. Dunbar, M. D., late Professor of Surgery and Surgical Anatomy in Washington College, Baltimore, setting forth his arrangements for private tuition. They are more ample, diversified and judicious than any we have yet met with, and we sincerely wish him a numerous class. His terms are $50 for one winter, $100 for a year, and $200 for the whole term of pupilage. It is in vain to deny that the private tuition of medical students in the United States is, *on the main*, humbuggery. Respectable exceptions, we admit, are to be met with, but they are by no means common. It is this lamentable deficiency in our plans of medical education, that renders it impossible for the best regulated public schools to send forth such graduates as would do them honor and raise the character of our profession. We again say that Dr. Dunbar, and all who may do like him, have our best wishes.

D.

MEDICAL APPOINTMENTS.

Dr. John Moorehead has been selected to fill the chair of Theory and Practice of Medicine in the Medical College of Ohio, vacated by the resignation of Dr. J. P. Kirtland. Dr. Moorehead was for several years Professor of Obstetrics in the same institution; he also held at one time the situation to which he is now again called, during which period, if we are correctly informed, he lectured for the space of *six weeks* on *Cephalæa*. Should the worthy professor do

the same thing the coming winter, we hope our friend, the doughty knight of the Western Lancet, will flesh his instrument in him.

Dr. N. Worcester has been appointed Professor of *Physical Diagnosis* and *Pathological Anatomy*, a new chair created expressly for him in the same school. The faculty of this college is now complete. C.

GROSS' EDITION OF LISTON'S ELEMENTS OF SURGERY.

This book, which was announced as forthcoming in June last, is now before the public, and has met with unqualified approbation from the eastern press. We have not yet received a copy, but hope to obtain one in time to present to our readers, in the journal for October, such notice of its contents as will enable them to form some idea of the merits of the work. C.

BOOKS RECEIVED.

Our acknowledgements are due to the Committee of Publication for a copy of the revised edition of the *Pharmacopœia of the United States*.

Dr. Paine will also accept our thanks for a copy of his *Materia Medica*, received some time since.

The *Proceedings of the Thirteenth Annual Meeting of the Medical Society of the State of Tennessee* have reached us. Notices of all these will appear in the ensuing number of the Journal. By the way, can our neighbor of the Western Lancet tell us aught of the proceedings of the fifth session of the Medical Convention of Ohio? We thought the transactions were to be published. C.